# the OIL AND GAS JOURNAL

PUBLISHED WEEKLY BY THE PETROLEUM PUBLISHING COMPANY AT TULSA, OKLAHOMA

VOL. 36, NO. 7 JULY 1, 1937



P. C. LAUINGER
President

C. O. WILLSON
Editor

W. T. ANDERSON, Managing Editor — JAMES McINTYRE, Consulting Editor
W. T. ZIEGENHAIN, Engrg. Editor — L. G. E. BIGNELL, Prod. Engrg. Editor
C. K. FRANCIS, Ph.D., Technical Editor — W. L. NELSON, Metallurg. Editor

*Associate Editors*

T. F. SMILEY — DAL DALRYMPLE
D. H. STORMONT — T. P. SANDERS
PAUL REED

*District Editors*

Houston, Sterling Bldg.
NEIL WILLIAMS
GEORGE WEBER — F. L. SINGLETON

Fort Worth, Petroleum Bldg.: L. E. BREDBERG
Shreveport, City Bank Bldg.: MITCHELL TUCKER
Los Angeles, Union Oil Bldg.: L. P. STOCKMAN
Washington, Natl. Press Bldg.: HENRY D. RALPH
Saginaw, Saginaw News Bldg.: O. C. PRESSPRICH
Denver, State Office Bldg.: T. R. INGRAM
New York City, 415 Lexington Ave.: H. STANLEY NORMAN
Oil City, Derrick Bldg.: J. P. O'DONNELL
Toledo, P. O. Box 98: G. A. WHITNEY
Chatham, Ontario, Box 136: V. LAURISTON

S. H. ROURKE
Business Manager

M. F. BALDWIN
Circulation Manager

*Advertising*

ERNEST KLAPPENBACH
Advertising Manager

New York City, 415 Lexington Ave.: C. L. CAIN
Cleveland, Leader Bldg.: HOWARD MARKT
Chicago, 300 W. Adams St.: C. R. FARMER
Tulsa, 114 W. 2nd St.: K. J. LANGLEY
Houston, Sterling Bldg.: WAYNE RIVES
Los Angeles, 1406 S. Grand Ave.: J. H. TINKHAM

Cologne, Germany
A. J. CHAMBERS


# Table of Contents


## NEWS DEVELOPMENTS

Summary ..... 7
Sparks From the News ..... 8
Executives Optimistic on Latter Half of Year —*By H. Stanley Norman* ..... 9
N.P.A. Technologists Visit N. J. Standard Laboratories—*By H. Stanley Norman* ..... 11
Eastern Kansas Stripper Fields Athrob With New Activity—*By Dal Dalrymple* ..... 12
National Oil Scouts Association Entering New Era—*By L. E. Bredberg* ..... 15
Pennsylvania Oil Investigation Hearings ..... 16
Congress Intent on Labor Issue Becoming Restive—*By Henry D. Ralph* ..... 17
Editorial ..... 18
Permian Basin Recovery Has Been Improved —*By Neil Williams* ..... 19
Bureau of Mines Estimate for July up 57,800 Bbls. ..... 20
Obituaries ..... 23
Pipe Line Activity ..... 24
Natural Gas ..... 24
Refinery Projects ..... 25
Natural Gasoline ..... 25
News From Foreign Lands ..... 26

## ENGINEERING—OPERATING

New Tide Water Butane-Propane Unit is Finished—*By H. Stanley Norman* ..... 28
Plug-Back and Reconditioning Work in the Talco District—*By Mitchell Tucker* ..... 30
Operating Ideas ..... 35
Results of Logging Two Wells According to Drilling Speeds—*By G. C. Maddox* ..... 36
Humble Lays Eight Pipe Lines Across Channel in Four Hours—*By F. L. Singleton* 37
Asphalt Made From New Mexico Crude— *By Dr. Sidney Born* ..... 38
Many Producing Levels Cause Unusual Well-Spacing Plan—*By T. P. Sanders* ..... 43
Progress in Metals—*By W. L. Nelson* ..... 49
Problems From Readers—*By L. G. E. Bignell* 50
Questions on Technology — *By Dr. C. K. Francis* ..... 52

## FIELD OPERATIONS

Field Operations Summarized ..... 55
Eastern Fields—*By Staff Correspondent* ..... 56
Southwest Texas—*By George Weber* ..... 59
Michigan—*By Otto C. Pressprich* ..... 87
Gulf Coast—*By F. L. Singleton* ..... 65-77
Oklahoma—*By Dal Dalrymple* ..... 66
North Louisiana - Arkansas — *By Mitchell Tucker* ..... 83
Rocky Mountain Area—*By Tolbert R. Ingram* ..... 70
Kentucky ..... 86
East Texas—*By L. E. Bredberg* ..... 60
Kansas—*By Dal Dalrymple* ..... 79
Central West—*By George A. Whitney* ..... 85
California—*By L. P. Stockman* ..... 63
West and North Texas—*By L. E. Bredberg* ..... 75
Canada—*By Victor Lauriston* ..... 88
Wildcat Operations ..... 89 to 97

## MARKETS AND PRICES

Crude Prices ..... 106
Group 3 Market—*By T. F. Smiley* ..... 102
A.P.I. Refinery Report ..... 103
New York Market—*By H. Stanley Norman* ..... 103
Tank-wagon Markets ..... 104
Refinery Prices ..... 105

## ADDITIONAL FEATURES

Do You Remember ..... 100
Personal Paragraphs ..... 100-101
Record of Oil Securities ..... 99
New and Improved Equipment ..... 107-109
Oil Man's Calendar ..... 110
Classified Advertising ..... 110-111
Advertisers' Index ..... 112
Oil Man's Calendar ..... 98



Rates: Domestic, 1 year, $6.00; 6 months, $3.00. Canadian and foreign, 1 year, $7.00; 6 months, $3.50. All subscriptions are payable in advance. Extra copies of special issues are reserved for subscribers' needs and may be purchased by subscribers at the price of 50 cents per copy.



Copyright, 1937, by The Petroleum Publishing Co.

# HERE IT IS!

## *3,000 POUNDS TO THE SQUARE INCH*

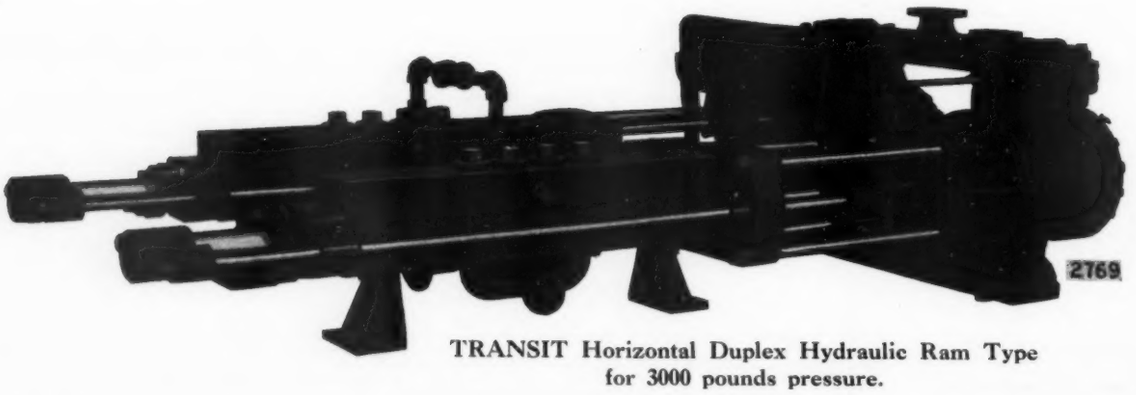
A thoroughly dependable, simple and durable, 3000-pound working pressure pump, for flushing, cleaning and testing around a refinery, and other high pressure work.

The cylinder bodies are forged steel blocks for utmost strength and all passages are bored out. Valves are of the wing-guided type and are easily removable through screw-plug openings.

Note accessibility of plunger stuffing boxes.

TRANSIT Horizontal Single Hydraulic Ram Type for 3000 pounds pressure.

# TRANSIT RAM TYPE PUMPS




TRANSIT Horizontal Duplex Hydraulic Ram Type for 3000 pounds pressure.

## NATIONAL TRANSIT PUMP AND MACHINE CO.

OIL CITY, PENNSYLVANIA

NEW YORK - PHILADELPHIA - CHICAGO - CLEVELAND - PITTSBURGH - LOS ANGELES - HOUSTON - TULSA

Frick-Reid Supply Corporation
108 N. Trenton Ave.,
Tulsa, Oklahoma

Pratt-Gilbert Company
Phoenix,
Arizona

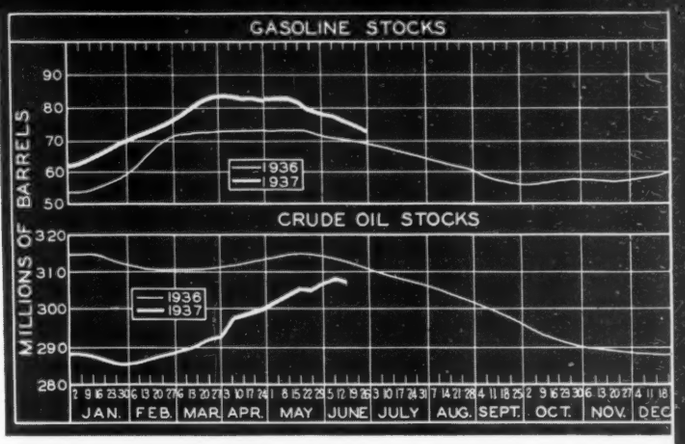
Standard Supply and Hardware Company
822-838 Tchoupitoulas St., New Orleans, Louisiana

Reeves & Skinner Machinery Co.
2211 Olive Street,
St. Louis, Missouri

TRANSIT Pump & Engine Co.,
2261 East 15th St.,
Los Angeles, California

F. C. Richmond Machinery Company
320-326 West Second South St.,
Salt Lake City, Utah

Eugene V. Winter Co.,
320 Market St.,
San Francisco, California




# Oil Stocks Rise in Inland Areas

PETROLEUM economists analyzing the present statistical position of the industry in relation to possible developments over the second half year are emphasizing the fact that the principal increases in crude oil and gasoline stocks have been at interior points. Conditions at coastal points appear particularly strong.

**CRUDE PRODUCTION** *3,538,147 barrels daily average—up 18,589 barrels.*

**CRUDE STOCKS** *307,199,000 barrels as of June 12—down 24,000 barrels.*

**GASOLINE STOCKS** *75,427,000 barrels as of June 26—down 1,147,000 barrels.*

**REFINERY RUNS** *3,235,000 barrels daily average past week—down 85,000.*

Crude oil stocks increased 21,988,000 barrels from January 23 to June 4, according to the latest available reports of the Bureau of Mines. Of this total 13,084,000 barrels, or 60 per cent, is accounted for by the increases in "Other Mid-Continent" which consists principally of Oklahoma and Kansas. Adjoining areas also show increases, with a gain of 21,800,000 barrels for the entire Mid-Continent. This means that the relatively small gains in other parts of the country have been offset by decreases, so that the Mid-Continent accounts for practically all of the increase. Crude stocks in the Rocky Mountain, California and Pennsylvania areas are less than they were February 1.

A somewhat parallel situation exists in gasoline stocks, which on June 19 were 7,360,000 barrels greater than on the corresponding date in 1936. Of this total gain 3,750,000 barrels, or 50 per cent was due to large increases at refineries in the middle western states of Indiana, Illinois and Kentucky, which obtain the bulk of their crude supplies from the Mid-Continent. Gasoline stocks were 1,324,000 barrels higher than last year in Oklahoma and Kansas. The interior areas of the Mid-Continent, Rocky Mountain and Middle West account for 85 per cent of the total gain in gasoline stocks at refineries and major water terminals. East Coast stocks of gasoline are less than they were a year ago.

The foregoing data are cited in support of the contention that the burden of any curtailment program, at this time should center in the Mid-Continent and the Middle West areas, which are responsible for most of the gains in inventories.

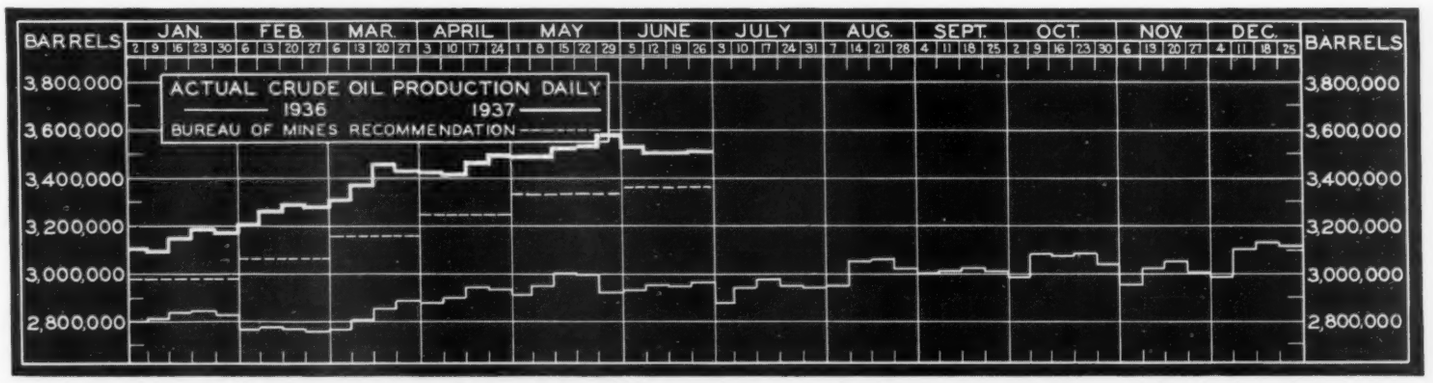
National crude production increased last week so that June ended with output higher than at the start of the month. Oklahoma and Kansas state allowable bodies have accepted the Bureau of Mines recommendation in regard to July output. Texas' state allowable at the start of the month will be 10,000 barrels daily in excess of the recommendation. Louisiana's state allowable for July will also be about 10,000 barrels daily greater than the estimated demand.

Except for a small reduction in spot gasoline prices in the Mid-Continent, refinery markets generally are steady to strong. There has been a heavy preholiday movement of gasoline from refineries to bulk terminals over the past month.

## Daily Average Production for Week

| | June 26, 1937 | Bur. Mines June est. | June State allowables | June 19, 1937 |
|---|---|---|---|---|
| Oklahoma City | 147,075 | ..... | ..... | 142,650 |
| Fitts | 93,500 | ..... | ..... | 97,900 |
| Remainder of State | 391,500 | ..... | ..... | 391,650 |
| Total Oklahoma | 632,075 | 625,300 | 625,300 | 632,200 |
| East Texas | 469,500 | ..... | ..... | 469,947 |
| West Texas | 198,747 | ..... | ..... | 196,500 |
| North Central Texas | 106,198 | ..... | ..... | 105,300 |
| Texas Panhandle | 84,650 | ..... | ..... | 86,948 |
| East Central Texas | 122,200 | ..... | ..... | 119,297 |
| Gulf Coast Texas | 328,699 | ..... | ..... | 319,800 |
| Southwest Texas | 103,449 | ..... | ..... | 103,598 |
| Total Texas | 1,413,443 | 1,354,000 | 1,351,198 | 1,401,390 |
| North Louisiana | 85,555 | ..... | ..... | 79,640 |
| Gulf Coast Louisiana | 175,150 | ..... | ..... | 174,250 |
| Total Louisiana | 260,705 | 252,000 | 254,650 | 253,890 |
| California | 654,500 | 585,900 | 603,900 | 659,200 |
| Kansas | 199,025 | 190,700 | 190,700 | 194,350 |
| Arkansas | 28,355 | 28,300 | ..... | 28,630 |
| Eastern Fields | 122,000 | 118,200 | ..... | 120,300 |
| Michigan | 42,184 | 38,400 | ..... | 42,268 |
| New Mexico | 114,580 | 102,000 | 114,500 | 115,270 |
| Rocky Mountain area | 71,280 | 71,200 | ..... | 72,060 |
| Total United States | 3,538,147 | 3,366,000 | ..... | 3,519,558 |

Increase, 18,589 bbls. daily.



# SPARKS FROM THE NEWS

Every one appears satisfied that the Connally Hot Oil Law has been extended for two years. Within that time its application may be studied and at least for the present there is no chance of destroying the constructive conservation work that has been accomplished.

Automobile production is running about 12 per cent above the same period last year with an indicated output for the first half of 1937 of 2,900,000 cars. Latest reports indicate gasoline consumption gain is only slightly less than car increase.

The first general application of the diesel engine to passenger-car service will be for taxi and bus service. Students of the question of diesel engines replacing gasoline engines are generally cold on the subject beyond this point.

A recent survey indicates that the combined cost of gasoline and oil represents 22.86 per cent of the total cost of operating a truck. The direct taxes on the gasoline and truck account for 7.92 per cent of the total and the driver receives 35.47 per cent.

Refiners are now beginning to revise their plant operations and to stock their bulk plants and stations with regular antiknock gasolines to meet the 72 octane number on "Q" gasoline effective September 1 and the 78 effective October 1 on Ethyl gasoline.

"I like to think that the petroleum industry today is nearer rationalization, nearer stabilization and generally in a better condition than any time in recent years," said A. P. I. Boyd at the scout meeting in Dallas.

A Baton Rouge refinery consumes 34,915,206,000 gallons of water annually. Enough $H_2O$ to supply a city of 900,000 people.

Among failures that will be borne with fortitude this year are those of natural gasoline and wax to sink into their customary summer slump.

The calendar makes a triple holiday out of the Fourth of July this year. So while America will burn the usual quantity of powder, it will burn a lot of gasoline too.

The hot season has arrived in the Southwest, when natural gasoline manufacturers have little difficulty in reducing the vapor pressure of their finished products.

A Royal Dutch-Shell statement explains that if its pipe lines were placed end to end, they would extend one-fourth the distance around the globe. A sizable ditching job.

The objective of the refining industry has been to convert crude oil into its most useful products and this procedure has tended to lessen the supply of residual oils to the point where the supply of the latter is now becoming of some concern to industrial and marine consumers.

## THE NIGHT SHIFT

*Two welders working on slip-joint surface casing*

Opening of a third oil pool in Barber County, Kansas, plus the Clark County strike of a few months ago, strengthens belief of many operators that northwestern Oklahoma offers good possibilities for production.

Modern trailers are taking the place of old-fashioned box car type of field houses for transient workers in some oil fields. No more roughing it for "roughnecks."

At least two of several promising Oklahoma wildcats have opened new oil areas, and the outlook for two or three others still is bright. Explanations now are in order from those pessimists who said all Oklahoma oil pools had been discovered.

# Executives Optimistic on Latter Half of Year

**By H. STANLEY NORMAN**

NEW YORK, June 28.—Most of the local oil executives who direct operations which are national and in several cases international in scope take optimistic positions in regard to probable developments over the last half of the year.

While there are variations in viewpoints regarding several matters, they see no cause for alarm at this time in the general statistical position of the industry. The chief concern is over the interior conditions, magnified last week and earlier in June by reductions in tankcar and tankwagon gasoline prices in the larger consuming districts of the Middle West. There is a feeling that interior conditions leave something to be desired and the possibility that Gulf Coast and Atlantic seaboard markets may be eventually affected is recognized.

The optimistic views are usually based on indications that 1937 consumption of all oils will be approximately 10 per cent greater than in 1936. Furthermore, the winter refining requirements to supply the furnace oil demand are relied upon to at least maintain and perhaps accelerate need for crude.

*THE REFINER'S CHANGING HORIZON—Showing the new trend in oil refining practice. Notice how runs to stills have pointed upwards in midwinter ever since 1934, reflecting the growth of heating oil demand. Throughput for 1937 is partly estimated*

### Gasoline Stocks

Most refiners are inclined to minimize the threat of top-heavy gasoline accumulation during the last quarter of 1937 and the first quarter of 1938 due to the present flexibility of refining facilities. A majority of the refining capacity now in operation affords sufficient selectivity in finished products that the anticipated sharp advance in furnace oil demand next winter can be met without dangerous gasoline accumulation.

Admittedly, the human element plays some part in the general outlook for the next six to nine months. Some refiners will continue maximum operation of cracking facilities during the distillate fuel oil consuming season, perhaps to the detriment of local motor fuel business. In considering the nation-wide outlook, however, the disturbing factors are relegated to unimportant positions with relation to the brighter side of the picture.

As pointed out in the current issue of The Lamp of the Standard Oil Co. of New Jersey, statistics show that the old order of refining operations prevailing through 1933 and, to a modified extent, through 1934 has been practically reversed during the past two years. The practice of speeding up charges to stills to reach the peak of refining operations at the start of the heavy motor fuel consuming season is no longer justified by conditions and statistics show that refiners have adjusted their programs to the new order. For example, February refinery operations in 1936 were at the rate of about 2,800,000 bbls. daily, nearly 100,000 bbls. more than was charged to stills in July, 1935, and about 30,000 bbls. per day more than was processed during September to December in the same year.

*Sinclair refinery Houston, Tex.*

### Crude Run Peak

Following the new order, crude runs to stills in January of 1937, about 3,025,000 bbls. daily, exceeded the summer peak of 1936 reached in June of 2,950,000 bbls. daily. Peak crude runs to stills in 1936 were reached in September of slightly more than 3,000,000 bbls. daily, but were still a little less than reported in January and February of 1937.

Part of the change in refinery operations since 1934 is accountable from modern highways permitting year around motor vehicle operation in parts of the country afflicted with sharp seasonal changes. However, the chief cause is found in requirements for furnace oils.

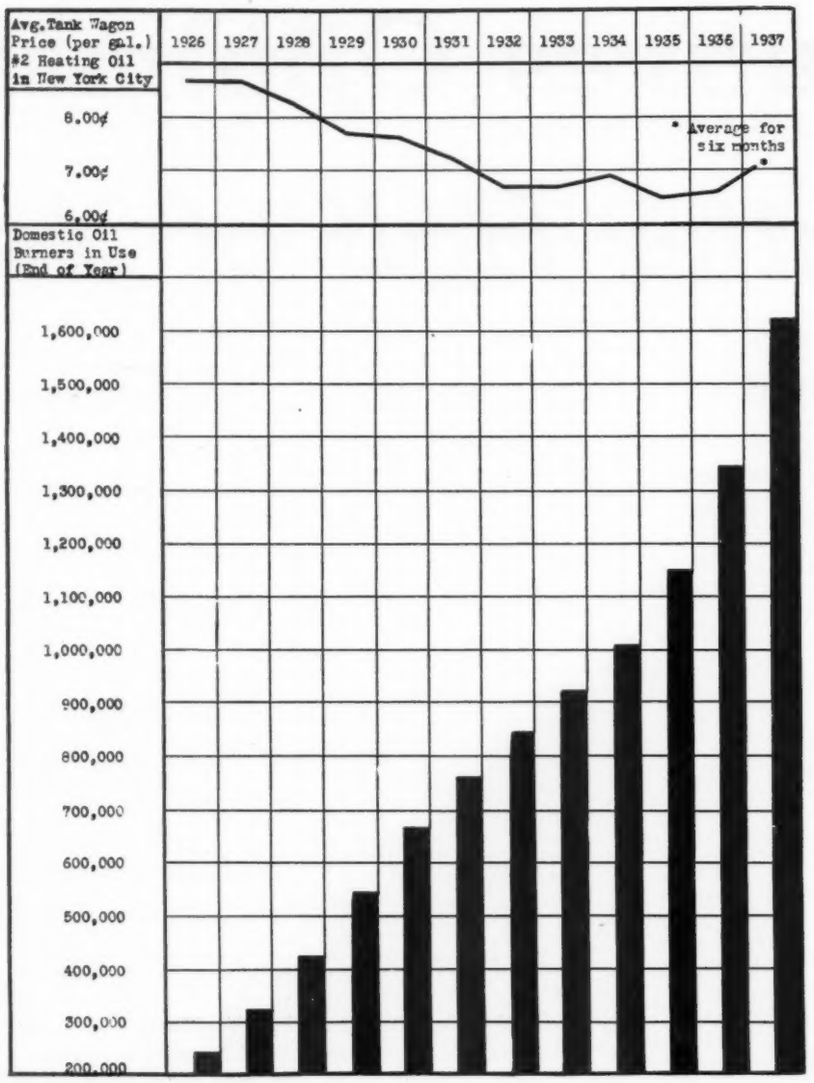
Distillate fuel oil burners are being added at the rate of 200,000 per year or more and men in close touch with heating trends regard develop-

ments in the past five years as just a start to what will ultimately develop in this field.

Gasoline stocks are now on the decline and probably will continue in this direction through about the middle of September, if precedent rules in 1937. Starting with a peak of about 83,538,000 bbls. in various storage facilities at the end of March this year, about 7,500,000 bbls. were withdrawn in April, May and June reducing the material on hand to little more than 76,000,000 bbls. During the same period in 1936, from March 31 to June 30, motor fuel stocks were lowered from 79,038,000 to 73,206,000 bbls., or a total of 4,832,000 bbls.

At the middle of September, 1936, motor fuel stocks were reduced to their lowest point for the year of 56,472,000 bbls., or a total drop for the heavy consuming season of 22,566,000 bbls. The figures show a large part of last summer's gasoline stock liquidation occurred during the two and a half months that we are now entering. About 80 per cent of the total gasoline stock reduction in 1936 occurred from July 1 through September 15.

If the same ratio of gasoline stock reduction should develop during the next two and a half months as in 1936, and assuming the 7,500,000 bbls. already withdrawn, represents 20 per cent, it would follow that a total decline of 37,500,000 bbls. could be attained by the middle of September. Since this would reduce the total to only about 46,000,000 bbls., it is not likely to occur. Estimated gasoline stock requirements for safe, convenient and economic operations is slightly above the 46,000,000-bbl. mark. Extra preparations for supplying the domestic heating oil requirements probably will be taken this summer and fall, which will produce substantially more gasoline than last year, even though the increase in motor fuel demand is expected to continue at about 10 per cent for the entire year.




*THE RISING TREND TO OIL HEAT—Virtually undampened by the depression, the oil burner by its convenience, cleanliness, and economy has won its way into a steadily growing number of homes. By the end of 1937 it is estimated that 1,625,000 will be in use—a gain of 20.4 per cent over last year. Since 1926, with domestic burner installations increasing an estimated 570 per cent by the end of this year, the average price of No. 2 heating oil in New York City today is down 20 per cent. (Accompanying charts courtesy The Lamp)*

Although stocks of distillate fuel oil are considerably below the 1936 level, oil men believe the industry will be able to supply the expected record demand next winter in stride. Considering only stocks east of California, there is about 13,730,000 bbls. of distillate fuel oil on hand. At the same time in 1936, stocks of distillate fuel totaled about 14,600,000 bbls., climbing to a peak of about 20,500,000 bbls. before starting to drop in September as winter withdrawals set in. This indicates about 6,000,000 bbls. of gas oil and distillate fuel were added to storage last year between June and the middle of September. As current stocks are less than last year, and burner installations are now running about 40 per cent ahead of 1936, the industry must build domestic heating oil stocks substantially during the next three months, while maintaining gasoline production at levels commensurate with demand.

There is a feeling in some quarters that the rate of gasoline production by refiners must taper off earlier in the fall than last year, if the supply of domestic heating oil is to be maintained at convenient and economical standards.

Additions of crude oil to storage so far this year have been at the daily average of about 112,965 bbls. Stocks now total a little more than 307,000,000 bbls., compared to 287,656,000 bbls. on January 1, 1937. In attempting to appraise the importance of this addition to crude stocks, majority opinion was not disturbed, but admitted the excess was sufficient to minimize opportunities for producers to obtain higher prices for production in the field. The production has totaled about 8 per cent more than calculated by the Bureau of Mines as the required output.

The relatively small additions to stocks of crude have been welcomed since the continual drain until early this year had produced some hardships in normal operations.

## New Pool of High Grade Oil

FORT WORTH, Tex., June 29.—Iron Mountain Oil Co. has opened a pool in northeastern Jones County, on the Olander land in section 196 BBB&C Survey, east of Avoca. It topped lime at 3,227 feet, 6 feet in the lime, and shut down after showing oil at 3,231 feet. Later it filled 1,500 feet with oil in four hours. After setting over night it started flowing. Casing is being run. The oil is 44 gravity.

## Revised Accounting Procedure

The Petroleum Accountants Society of Oklahoma has presented for approval to the board of directors of the Mid-Continent Oil and Gas Association a revised accounting procedure for unit and joint lease schedule. A committee headed by R. L. Rush of the Sinclair Prairie Oil & Gas Co., Tulsa, has been working on a revision for some time. L. P. Harrington, Tulsa, is president of the society.

## Osage Council Rejects Bids

The Osage Tribal Council, dissatisfied with prices offered on 35 tracts at the Osage lease sale in Pawhuska last week, voted unanimously last Saturday to reject all bids as insufficient. This is said to have been the first time since Osage lease sales were started in 1915 that every bid of a sale was rejected. The sale, one of the smallest ever held at Pawhuska, resulted in the sale of 35 of 60 tracts offered for only $8,975. Devonian Oil Co.'s bid of $1,600 for SE section 5-25-10, was the largest bid submitted. Mid-Continent Petroleum Corp. was the largest buyer, bidding $1,000 each for two quarter sections in a new area west of Fairfax, and bidding the minimum of $100 for two other tracts in section 3-24-9.

## Texas University Leases

AUSTIN, Tex.—The board for lease of University of Texas lands auctioned June 25 mineral leases on 81 West Texas tracts comprising approximately 13,000 acres for aggregate bonuses of $380,000.

Quarter section tracts were leased in Crane, Ector, Andrews and Pecos counties. No bids were received for six tracts in Upton and Crockett counties.

E. E. Fogelson of Dallas and Houston paid $34,000 for 167.4 acres in the NE cor. section 14, Block 35, in Crane County, and $32,000 for 164.3 acres in the SW section 4, Block 35, Ector County.

Mr. Fogelson purchased 165.1 acres in the SW section 7, Block 35, Ector County, for $21,500 and the SW section 8 in the same block for $12,500. Olney S. Black paid $10,000 for the NE section 14, Block 35, Andrews County.

# Technologists of N.P.A. Inspect N. J. Standard Laboratories

By H. STANLEY NORMAN

NEW YORK, June 29.—The need for revised or extended methods of test which will more accurately reflect values in the modern light lubricating oils both in their natural state and when supplemented with additives was voiced frequently last week at the National Petroleum Association meeting in Jersey City.

Petroleum technologists attending the association's division of standards meeting had ample opportunity not only to discuss current problems of testing products, but they also saw actual application of methods used in the Standard Inspection Laboratories at Bayonne and at the Esso Laboratories in Bayway, N. J.

At the end of the first day, the technicians, assembled for dinner in Jersey City heard two topics of current interest discussed by A. J. Blackwood and Dr. F. L. Miller of the Standard technical staff followed by observations and questions.

Mr. Blackwood reviewed trends in diesel engine design, predicated on the observation that use of this type of power is growing at the rate of approximately 100 per cent per year in this and certain European countries.

There was a tendency among those present to favor approach through the channels of addition agents to the petroleum base, particularly in the light of existing knowledge. Dr. Miller outlined a few fundamentals to which modern lubricants must measure up. He said they must be able to carry higher loads and still permit less wear than the best natural oils. For gears, he said, this development is already accomplished, and its necessity is at hand for aviation engines, while it is probably just around the corner for passenger car engines.

Dr. Miller's inference that de-waxing alone is insufficient to produce the ultimate desired characteristics in motor oil was drawn from his remarks regarding polymerization of wax. Research has proved, Dr. Miller said, that excellent motor libricants of over 120 viscosity index might be made by polymerizing cracked petroleum wax.

That considerable progress is being made on the general question of additives to impart certain desirable ingredients to lubricating oil was indicated in Dr. Miller's review of specific test results.

The general observation that diesel fuels as now produced and marketed by petroleum refiners are satisfactory to engine manufacturers was made by Mr. Blackwood. While injecting the personal opinion that diesel engine builders are not anxious to see quality of fuel increased materially due to economic operating considerations, Mr. Blackwood said fuel mileage probably will continue as the diesel's strongest point in this country.

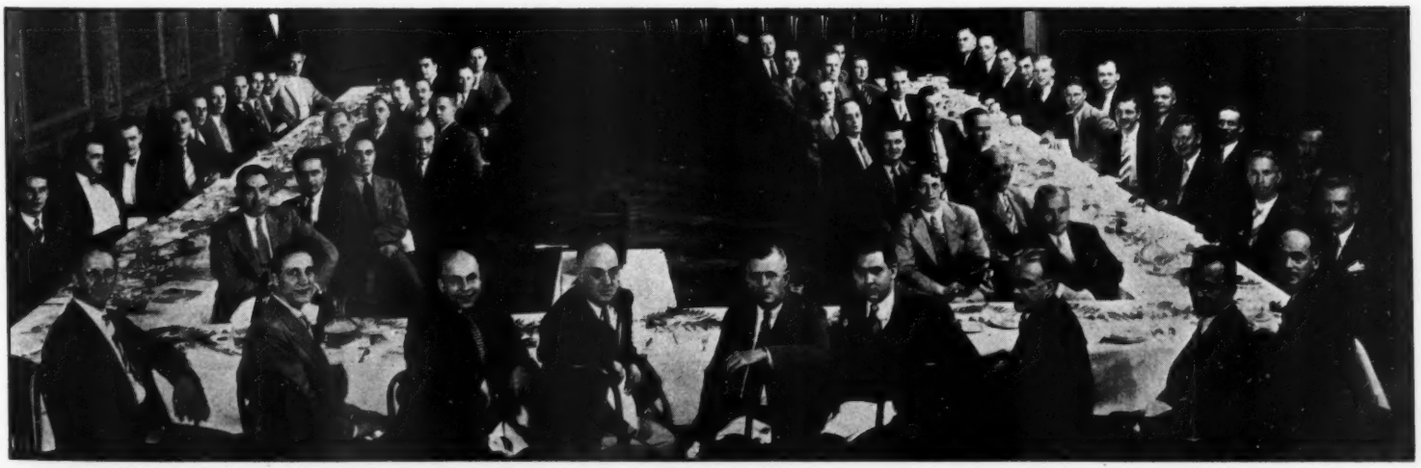
The disparity in cost of fuel injection systems, namely about $6 for a complete gasoline carburetor as opposed to about $60 per cylinder for direct injection diesel fuel pump, requires high mileage to realize the economy of lower diesel consumption. For this particular reason, the automotive type diesel engine in this country is restricted to commercial units of high annual mileage such as buses and trucks on freight lines. Mr. Blackwood thinks the diesel may ultimately gain popularity in the taxicab field and possibly local delivery commercial units.

The American builders generally are clinging to or turning to the ante-chamber type of fuel system rather than the direct injection trend equally popular in Europe.

In remarks following Mr. Blackwood's discussion, Dr. H. M. Rugg, engineer for the Pennsylvania Crude Oil Association, expressed belief a majority of the ring sticking troubles prevalent among American built engines a few years ago was at least partially caused by design and not a fault of fuels. Field observations indicated a blow torch could have not produced a more damaging "hot spot" in the cylinders than was caused by some ante-chamber combustion systems. However, he said, it was up to the petroleum refiner to produce an increasingly clean diesel fuel and related an experience in the middle west where about eight pounds of solid material was filtered from 500 gallons of diesel fuel. Dr. Rugg said some of the solid material was volatile, but the meager clearance between walls and cylinder in diesel engines makes a clean fuel even more important than in gasoline motors.

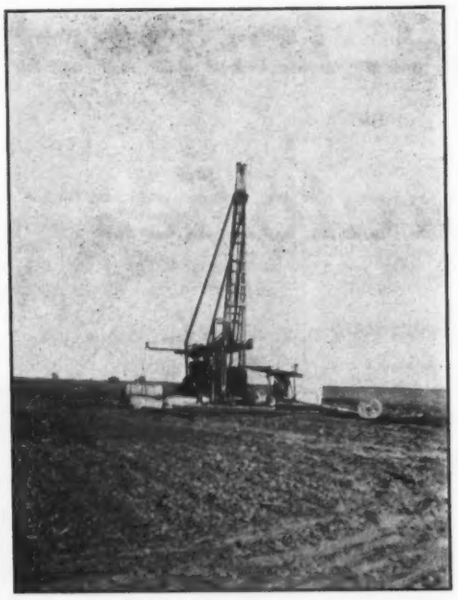
The keynote on the lack of adequate tests for modern lubricants was first sounded by Dr. E. W. Dean, head of the Standard Inspection Laboratories, speaking briefly at the noon luncheon Thursday in the Bayonne refinery dining hall. Dr. Dean was particularly critical of the Saybolt table in assigning values to lubricants of less than 45 seconds at 100° F. He said the Saybolt table was practically worthless below 40 seconds since a variation of a tenth of a second would produce "horrible" results. In an effort to overcome the variable unavoidable in human manipulation of the watch at 45 seconds or less, the Standard Inspection Laboratories are experimenting with a smaller orifice in the bomb which gives interesting possibilities. Experiments are also under way for converting kinematic viscosity to better understood tables in the petroleum industry. Dr. Dean distributed booklets containing tables converting kinematic viscosity to Engler, Saybolt and Redwood terms.

Most of the technologists were conducted on an inspection trip through the Bayonne refinery where they had opportunity to see the phenol solvent plant in operation, the piece of equipment which attracted most interest. Consideration is now being given to construction of a phenol plant tower to replace or augment centrifuge extraction. It was explained the Bayonne plant is now a link in the Standard of New Jersey's integrated east coast refining program and is used chiefly for production of lubricating oil, wax and kerosene. The final day of the meeting was spent inspecting the Esso Laboratory and Standard of New Jersey refinery at Bayway, N. J. There, the visitors saw cracking stills and the hydrogenation plant.



*N.P.A. technicians pause to dine during visit to New Jersey plants*

# Eastern Kansas Strip Athrob With New



*A 100-bbl. well in Kincaid area*

**By DAL DALRYMPLE**

Eastern Kansas, scene of oil and gas exploration since the fall of 1860, is making good in its comeback. Many wells are being drilled in sectors considered fully developed years ago, and countless old wells are being reconditioned or deepened to lower pay horizons. New producing formations are being discovered, new pools are being opened and water-flooding projects now under way seem certain to increase production in several old areas.

A recent compilation showed 98 wells being drilled in eastern Kansas. A very good record, indeed, for an area in which the first gas was found in 1870 (at Iola, Allen County), and where the first commercial oil production was found in 1889 (near Paola, Miami County). Activity has increased since that compilation, and now considerably in excess of 100 oil and gas wells are being drilled in the eastern and southeastern counties, with more than 80 machines and rigs reported in Chautauqua and Elk counties, alone.

Generally speaking, eastern Kansas includes Greenwood, Butler and Cowley counties, where several important strikes have been made within the past year or so, including the Weathered pool and Bartlesville sand discoveries in Cowley County and the Landon-McCaig discovery in Butler County. These sectors, however, have had their share of publicity. Let us consider the less publicized areas farther east.

Anderson County is one of the old eastern counties now enjoying a revival of activity and is typical of the area. This county has two water-floods under way, a new shoestring pool being developed, new development in a second sector and a gas storage project now faced with legal complications.

### New Kincaid Area

The new Anderson County pool, of which there has been little if any mention in scout reports or press dispatches, is the Kincaid shoestring in the southeastern corner of the county. Some 40 odd wells have been drilled in this shoestring, which extends from the southwest part of Township 22-21e to the southeast across Township 23-21e, where it connects with an older area extending from Bourbon and Allen counties. There still is considerable acreage to be drilled between the main development east of the town of Kincaid and the older area to the southeast. The shoestring, which was opened by W. E. Stroud at a well 1 mile east of Kincaid, is from one to four locations wide and about 2½ miles long. Five machines are usually drilling in the area, sometimes more.

They do not get big producers in this area comparable with those of many of the western Kansas fields. But they do not have to go so deep to find the pay, do not require weeks and months to complete a well, have no such high costs of operation.

Initial production of Kincaid wells ranges from 25 to 140 bbls. daily, with one well having initial production as high as 200 bbls. daily. The production soon settles to around 5 or 6 bbls. daily, remains at that about one year, then drops to about 2 bbls. daily and continues there indefinitely.

Pay found in Bartlesville or Shoestring sand ranges from 18 to 54 feet in thickness, and depths run from about 650 to 800 feet. A Kincaid well can be drilled and completed for an average cost of about $1,800. At that low cost and the prevailing rate of production, it doesn't take long for one of these wells to pay for itself.

The oil is low gravity, about 28 degrees, and much of it is taken by truck to Kansas City, where it is used for fuel oil.

The Black Oil Co. of Garnett has most of the development in this area. Other operators include Streeter Oil Co., W. T. Stroud, C. E. Richart, H. I. Frost, H. C. Cooper and other local operators. The Schermerhorn Oil Co. of Tulsa owns acreage to the north, which, some observers believe, may be connected with the Kincaid shoestring. If the intervening area is proved for development it will open an elongated pool that may extend to, or almost to, the Bush City shoestring in Township 21-21e.

Geology, in this as in other shoestrings of eastern Kansas, doesn't mean much above the lime. Operators depend almost entirely on the drill to determine if their location is on the shoestring or just off it. It is not unusual for only one or two wells to find oil in a chain of four or five parallel tests drilled across the shoestring.

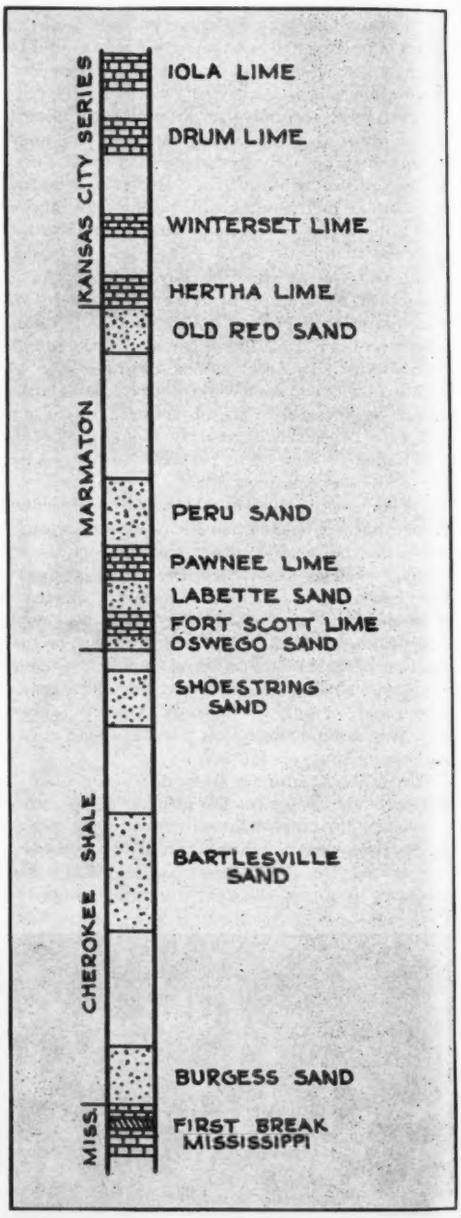
### The Colony Sector

Another new area being developed in Anderson County is southwest of Colony, where Oko Oil Co. is extending a shoestring from Allen County. Conditions generally are similar to those of the Kincaid sector.

Other Anderson County activity of the moment includes water-flooding projects in the Garnett and Bush City shoestrings, and the Cities Service Co. gas storage project in the Welda district. It is the Cities Service plan to pipe gas from Texas and Oklahoma fields during the summer, store it in the old, depleted Welda gas field until winter, when it will be transported by pipe line to distributing companies in northern Kansas and Missouri cities.

The company has obtained permission of all but one group of property owners in the area for the use of of gas sands beneath their lands for storage purposes. The one group of property owners has opposed condemnation procedure brought by the company, and the project awaits consummation while the matter is fought out in the courts.

There is much new activity, other than water-flooding, elsewhere in eastern Kansas counties. This includes development around Yates Center in Woodson County, operations in the Chanute and Altoona areas of Neosho and Wilson counties, and




*This strata chart represents a section of approximately 1,000 feet thick in the stripper district of eastern Kansas. The sands were given the names that apply to them chiefly in Allen and Anderson counties, and frequently are known by other names elsewhere. Log courtesy of Wichita Beacon, prepared by Kansas Blue Print Co.*

# per Fields Activity

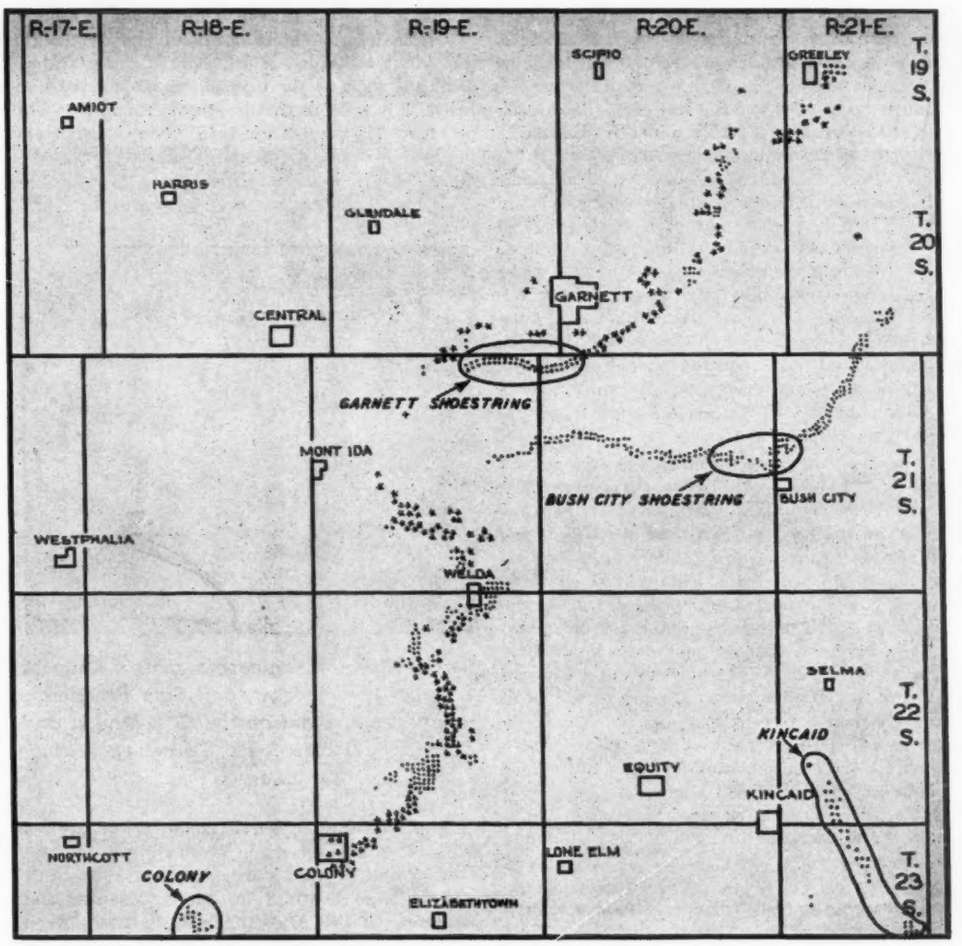
the quest of Siliceous lime production that is almost approaching boom status in Chautauqua and Elk counties. In addition, several wildcats are being drilled or are proposed for the eastern areas, and more lease activity is reported in this part of the state than at any time in recent years.

Eastern Kansas wildcats include four in Woodson County, three in Chautauqua County and two in Elk County, now being drilled as reported in the current wildcat field reports of The Oil and Gas Journal. Thad Wilson, geologist, has a 4,000-acre tract south and east of Kincaid on which he proposes to drill a deep test about 1 mile west of the Bourbon County shoestring. Mell Pallett of Kansas City and C. I. Layton and associates of Ottawa have a tract of about 1,500 acres west of Garnett near the west edge of Anderson County, on which they plan to drill a test to about 1,600 feet in the second break in the lime. P. J. Dick and associates recently announced a Siliceous lime test in section 36-30-14e, Wilson County. Rumors were current at Garnett and Chanute of seven or eight wildcats proposed for eastern Kansas, but these had not reached the stage where definite locations were announced.

### Old Areas Revived

There has been a revival of drilling in the old Rantoul field of Franklin and Miami counties, now receiving attention from oil men due to plans to repressure the area. However, the real drilling fever that has gripped the southeastern counties has not yet penetrated as far north as these counties to any great extent. Operators predict the rejuvenation of eastern Kansas ultimately will extend to and beyond Franklin and Miami, through Johnson and Wyandotte counties to the very edge of Kansas City.

Perhaps the most spectacular new development in eastern Kansas is in Chautauqua and Elk counties, where Siliceous lime discoveries of the past year or so have caused sufficient interest to again attract attention of several large independent and major operators to the area. The discovery, current development and methods of production in the Key, Oliver, and Monett pools of Chautauqua County were discussed in a recent special article, (The Oil and Gas Journal, Feb. 25, 1937). Activity still is on the ascending scale in the two counties, as operators endeavor to discover pools, seek Siliceous lime production in some of the old shallow oil areas and search for oil in sectors that previously yielded only gas. Innumerable drilling outfits are being moved into these prolific old areas, many of which were abandoned a few years ago when the price of oil dropped to 25 cents a barrel.



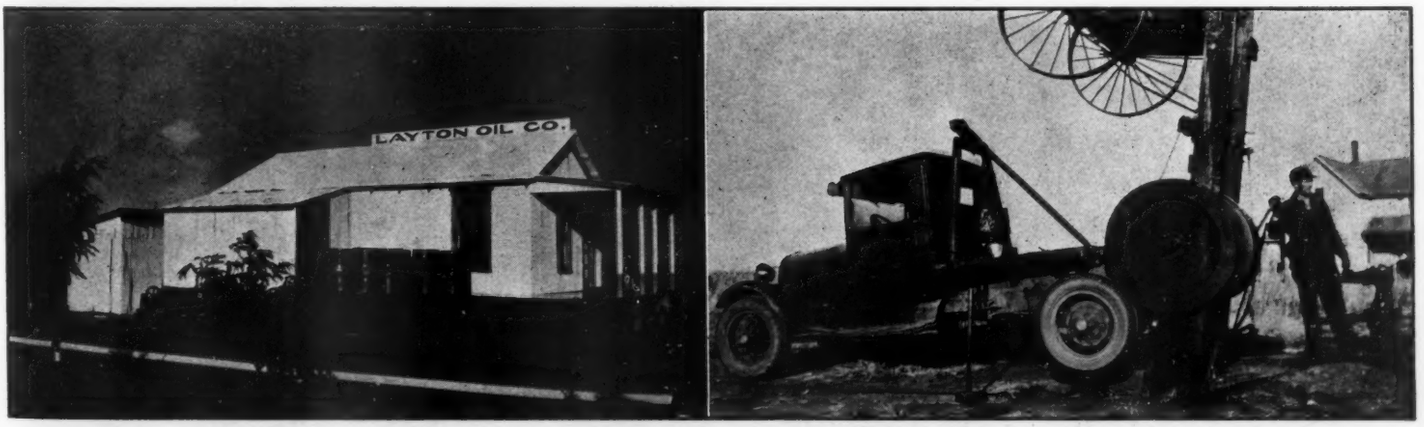

*Map of Anderson County, an active sector of the eastern Kansas revival*

### In Woodson County

The Woodson County development, while perhaps not so spectacular as that of Elk and Chautauqua counties, is keeping pace in the amount of new activity. Some of the Woodson County play extends into Coffey County on the north, but much of the activity is west and southwest of Yates Center and along the Greenwood County line. Bartlesville sand wells that produce from 150 to 250 bbls. of high gravity oil initially from 1,300 to 1,450 feet are not unusual. Various trends and cross trends are being developed by Woodson County operators, including Chris Sheedy, Saco Oil Co., T. O. Barrett, J. G. Bunch, M. B. Allen, B. & B. Oil Co., Morris and associates, Ward McGinnis, Alexander and partners, Pure Oil Co., Fred Rapp, and others.

The water-flood is a comparatively new departure in Kansas, and as yet only one or two projects have advanced to the stage where definite results can be ascertained.

Results already have been obtained in the Seeley




*Left, Layton Oil Co. plant, typical of eastern Kansas. Right, pulling rods and tubing with friction pulling machine, utilizing Model A Ford truck, a method used in stripper areas of Kansas*

pool, Greenwood County, where York State Oil Co. started an experimental flood in section 32-22-11e. Originally developed in 1923, the property included 12 wells producing from 40 to 80 feet of Bartlesville sand found at 1,950 to 2,000 feet deep. Production had settled to about 500 bbls. a month from the 12 wells. When the water-flood was started one water well was drilled as a five-spot location in the center of a square formed by four old oil wells, which had been drilled on 660-foot spacing. Water from a pool on the lease was filtered and injected at fluid column pressure at the rate of 400 to 500 bbls. of water daily. The water supply later was exhausted, but more input wells were drilled and a line laid to an adequate supply of water. Three months after the first increase in oil production was observed, as a result of the water-flood, production increased to approximately 2,800 bbls. a month and remained at that figure for several months.

An interesting project is under way in Anderson County. It is Brundred Oil Corp. flood on the C. I. Layton property in the Garnett shoestring. The inside line drive plan, with a row of oil wells and a row of water wells, is being followed. In the first pattern there are 15 water wells and 18 oil wells, located so as to conform to the shoestring. On the first lease to be developed, as part of the initial pattern, nine new oil wells and seven input wells were drilled. Injection of water began last November, and first production as a result of the flood is expected in July.

The Brundred company obtains filtered water from the city of Garnett water system and refilters it before injecting. Water is going in under fluid column pressure, pump pressure to be applied only when the wells cease taking water in reasonable volume. The water wells are 600 feet apart, and range from 700 to 750 feet deep, with sand thickness averaging 40 feet. The operators plan to drill one pattern at a time. That part of the Garnett shoestring included in the field project is 2½ miles long, from 2 to 4 locations wide, and has a potentiality of 12 patterns.

### In Bush City Area

Another Anderson County project is that of Oko Oil & Gas Co., of Iola, which has four machines drilling in the Bush City shoestring, preparatory to flooding with gas. The supply will be obtained from the Cities Service Co. high-pressure line traversing Anderson County. This activity is at the two ends of the shoestring, while Read Oil Co. is preparing to start a water-flood in the center of the shoestring, near the town of Bush City.

Texas Co. has a flood in Linn County, section 13-21-23e, in the Centerville shoestring. Originally, six input wells, irregularly spaced, were drilled, with oil wells of the original development being used. Pay sand in that locality is found at about 375 feet. The project still is too young to ascertain maximum results, but it has advanced sufficiently to insure increased production. Texas Co. has about 750 wells in eastern Kansas stripper areas.

*Left to right: Bill Umbarger, driller; Kenneth Baugher, tool dresser, and Sam Roseberry, pumper, employed on the C. I. Layton and Brundred Oil Corp. lease, Garnett shoestring, Kansas*

Streeter Oil Co. has from 600 to 700 productive acres in the Moran area of northwestern Bourbon County, with a flood started. This firm has substantial lease holdings in Allen, Anderson and Bourbon counties. Gled Oil Co. is starting a flood south of the Streeter project, on the east edge of Allen County, where it has about 300 productive acres. Shell Petroleum Corp. has more than 1,000 productive acres south of the Gled holdings, between Moran and Bronson, with a flood project. George Perry is preparing to start a flood southeast of Humboldt, and several other projects are proposed in the Chanute and Moran districts and in Chautauqua County.

Gas repressuring projects are under way in several sectors. Greysolon Oil Co. of Independence is using this method of increasing production in old wells in Montgomery County.

Most of the production is from sand. The shallow oil sands often do not produce water, sand condition is of more importance than structure, and failures usually result because shale replaces sand rather than because they dip into water. Structure has some influence on gas yield.

Gas is produced in some localities from the Old Red sand, especially in the Longton field of Elk and Chautauqua counties, but has little oil yield.

The Peru sand often is called the Big Lake sand and has various other local names. It is one of the more important producing horizons in eastern Kansas and is generally prevalent to the Granite Ridge, western boundary of the area. Peru sand wells have long productive lives. Wells with initial production as high as 250 bbls. have been completed in this sand at depths around 400 feet, notably in the Big Lake field, Miami County.

The Labette sand produces in scattered fields. It often is laminated with shale. The oil usually is black and of low gravity.

Oswego sand, known locally under various names, produces some oil in southeastern counties.

The Shoestring sand is an important producer in many counties, the Garnett and Bush City shoestrings being among the best known areas producing from this horizon. The sand generally is believed to have been ancient river beds. Usually the trends are both narrow and long, accounting for the name. Shoestring oil usually is of a gravity in the middle thirties. The wells are long productive.

Bartlesville sand is a big producer of both oil and gas in most of the eastern counties, and the wells produce for many years.

The Burgess sand has yielded much gas in southeastern Kansas, but is not such an important producer of oil as the Bartlesville formation.

The First Break in the lime is not an important producer of either oil or gas in the stripper district, although of late it has yielded some oil. Some important production in this zone has been found to the west of the major stripper areas.

Many shale gas wells have been completed in eastern counties and, although usually small, they produce for many years. Shale gas has been produced from every stratum that has an oil sand, where the shale replaces sand. Much of the recent new activity in the Altoona area of Wilson County and the Neosho Falls district of Woodson County resulted when some of the old shale gas wells were deepened and oil found below.

Siliceous lime only recently entered the eastern Kansas picture, following the discoveries in the Moline and Sedan areas of Elk and Chautauqua counties.

*National Oil Scouts Association at*

# National Scouts Association Is Entering New Era

By L. E. BREDBERG

*H. Boyd, president; H. Leyendecker, first vice president; L. A. Adams, chairman executive committee; (standing) L. Huddleston, secretary and E. Neath, second vice president*

DALLAS, Tex., June 28.—The National Oil Scouts Association of America has long passed the formative stage and with the fourteenth annual convention, held at the Baker Hotel June 25-26, appears to be entering a new era. The new officers and members of the organization discussed affiliation with the American Petroleum Institute as a possible division of that body, with W. J. Boyd, Jr., executive vice president of the Institute, who was the keynote speaker of the convention. He paid an eloquent tribute to the scouts as "rendering service, first, in supplying useful data and second, in creating understanding."

"Improved technique of finding and producing oil," he said, "is responsible for more oil being found and produced, and there is no end to progress in the finding of reserves and the production of oil and its manufacture into other products."

Bruce Barkis of Lane-Wells Co., Los Angeles, in a paper dealing with "Recovering Cased off Production—Its Effect on National Oil Reserves," said that from 1,000,000 to 1,500,000 bbls. of oil are estimated to be cased off in wells, and that this cased off production, at least a greater part, can be obtained now by simplified methods devised by engineers who have perfected instruments to do the work.

K. B. Nowells, of the Forest Development Co. of Abilene, Texas, delivered a paper on "Flooding of Sands with Water." Papers were also read by James D. Hughes of Eastman Oil Well Survey Co., Dallas, on "Directional Drilling Methods," and by E. F. Stratton of Schlumberger Well Surveying Corp., Houston, on "Water Flow Location by Means of Photoelectric Surveys."

Ben Nash, who has been scouting for 29 years, having started in the old Caddo field, and who has been with one organization all that time, Houston Oil Co., and is now located at Beeville, was awarded a life membership in the association. He is considered "Dean of the Oil Scouts."

Newly elected officers of the association are: Howard Boyd, chief scout for Magnolia Petroleum Co., Dallas, president; Harry Leyendecker, chief scout for Tide Water Associated Oil Co., Houston, first vice president; Ed Neath, Humble Pipe Line Co., Longview, Texas, second vice president; Lonnie Huddleston, Shell Petroleum Corp., Wichita Falls, Texas, secretary-treasurer; and Lee Adams, Sinclair Prairie Oil Co., Oklahoma City, chairman of the executive committee. Mr. Boyd has been secretary-treasurer for two years and Mr. Leyendecker was chairman of the executive committee the past year, and editor of the Year Book, which job will fall on Lee Adams this year.

Tulsa appears likely to be the choice for the next convention, the scouts taking a straw vote to meet in Tulsa during the 1938 International Petroleum Exposition, although the executive committee has to ratify such vote at its next business session.

*fourteenth annual convention Dallas, Tex.*

# *Pennsylvania Investigating Committee Holds Hearings at Oil City, Franklin*

PITTSBURGH, Pa., June 28.—The commission appointed by Governor Earle to study whether the oil industry in Pennsylvania should be subject to public utility regulation heard Pennsylvania Grade crude producers at a hearing in Franklin Saturday.

W. J. Brundred, Brundred Oil Corp., Oil City, said the average cost of producing Pennsylvania Grade oil in 1927-8-9 was $3.79 per barrel but this had been reduced by increased production. Producing costs for his company were under those of the average producer due to his secondary recovery operations which permitted him last year to produce oil at a cost of $2.42 per barrel.

C. C. Hogg, manager, National Petroleum Co., Titusville, a consulting engineer, said the use of secondary recovery methods, enabled a producer to reduce lifting costs.

John Ritchie, Franklin producer, found producing costs "close to $3 per barrel and possibly slightly more." Asked why operators continued to sell oil for less than cost of production he replied it has only been the hope of higher prices that has sustained the Pennsylvania producer over the past few years.

Others who testified were W. F. Moyar and John Glass of Oil City, E. S. Moyar of Rouseville and A. L. Hartman of Franklin.

Hearings will not be resumed for some time but Judge Smith, chairman, indicated the commission will return to the oil territory for additional information.

Refiners constituted the bulk of the witnesses before the commission Friday in Oil City. Fayette B. Dow, vice president and general counsel of the Pennsylvania Grade Crude Oil Association, answered the repeated question, what was the price setting factor of gasoline in that area, by stating it is gasoline made from other crudes than Pennsylvania which constitutes approximately 60 per cent of the motor fuel marketed in the Appalachian area.

W. S. Zehrung, president, Pennzoil Co., said there is no fixed price but the major buyers, South Penn, Tide Water, Cities Service and Valvoline, post their prices and others follow. He said demand is the biggest factor.

Pennzoil Co. has approximately 150 retail outlets in western Pennsylvania and eastern Ohio. Mr. Zehrung said, none under exclusive dealing contracts. Questioned if Pennzoil made gasoline to be marketed by other companies under their brand names, Mr. Zehrung replied in the affirmative.

W. R. Birkmayr, manager of the gasoline division, Pennzoil Co., said no one company sets the price. He denied that Standard Oil of New Jersey prices were employed as a basis and said Pennzoil stations have followed the lead of Soconv-Vacuum, Gulf, Sun and Standard of Ohio. He told of the factors governing tank-wagon sales, and said a half cent advance is made on the posted price to split compartment dealers. Below posted tank-wagon prices are given only to those who guarantee to take a minimum of 100,000 gallons per year.

R. A. Browne, secretary, Pennzoil Co., testified his company made ethyl gasoline for Soconv-Vacuum and made gasoline for Standard Oil Co. of Pennsylvania on an exchange basis, subject to specifications of the buyer. He expressed belief Atlantic has been the leader in this district and others have followed its lead.

Frank McGraw, president Oil Creek Refining Co., Titusville, stated his company had charge accounts but allowed no discounts. Oil Creek stresses sale of motor oils, he said, and satisfied its gasoline requirements by purchases from Standard Oil Co. of Pennsylvania marketed as Essolene.

Frank Berry, vice president James B. Berry Sons' Co., Inc., said the Pennsylvania refiner depends on lubricating oils for his profit and his gasoline must be marketed in a restricted area.

Norman A. Davis, president Mid-Penn Refining Co. said gasoline sold by his company was marketed by buyers under their individual trade names, all sales and purchases being made on specifications.

D. M. Sachs, president, National Transit Co., stated his company lost substantially on the operation of gathering lines which were retained chiefly for benefit of producers who depend on them to market their oil. Mr. Sachs stated if there were fewer gatherers of crude, the volume would be greater and the charges to the producer would oe lower.

A. W. Scott, vice president and secretary, Wolverine-Empire Refining Co., was asked the reason for the advance in Pennsylvania crude and replied it resulted from the increased demand which present production barely supplies. His company buys a minimum of 650 bbls. per day from South Penn Oil Co., approximately 66 per cent of its requirements, and only 33 per cent from independent producers because it has more assurance of a continued supply from South Penn. Gasoline is a "loss" item in Pennsylvania, he said. The cost is carried by lubricating oils. The per gallon cost of the crude (6.7 cents) is above the selling price of gasoline (6 cents).

## Richfield Wage Agreement

LOS ANGELES, Calif.—Richfield Oil Corp. has signed an agreement covering working conditions of all hourly-rated employes in the production, natural gasoline, pipe line, refinery and automotive transportation departments. Approximately 1,500 workers are affected. The agreement is for one year, and thereafter until either party should desire a change.

J. C. Coulter, secretary of the oil workers union, said the agreement includes annual vacations, sick leave with pay, amicable methods of settling disputes or grievances, additional pay for overtime, hours of work conforming with those in the oil code and other provisions.

The Oil Workers International Union is the successor to the International Association of Oil Field, Gas Well and Refinery Workers of America. The Richfield company is controlled by the Sinclair interests which were the first to conclude wage agreements with the oil workers union.

## Repressuring Projects

The Oklahoma Corporation Commission has taken under advisement application of two oil companies to repressure blocks of leases in Nowata County by the water-flooding method. Phillips Petroleum Co. applied for permission to flood unitized properties known as the Coody's Bluff block. Forest Producing Co. bought a permit for similar work in Township 26, Range 16e.

Wellsville Oil Co. is starting to develop a new repressuring program on the Everett lease in section 17-24-17e, in the Chelsea area of northeastern Rogers County. It has been burying the water line it has laid from the Verdigris River to its pumping plant. A treating unit has also been constructed so the water can be stabilized.

A repressuring program for the Bethel area in Township 9n-8e, of Seminole County, is being prepared. Phillips Petroleum Co., Deep Rock Oil Corp., Carter Oil Co. and Winona Oil Co. propose to use gas in the Booch sand to repressure the other formations.

## Humble Wage Agreement

HOUSTON, Tex.—R. W. Pennell, president of the Humble Oil Co. Employes Federation, created by the workers as their bargaining agency, reports the production and crude oil departments had signed a working contract. Mr. Pennell said the contract called for a 36-hour week, adjustments in pay, time and a half for overtime and a change in the vacation policy. He pointed out Humble gave a general increase last month. He said the agreement was approved by 985 of the 1,117 workmen affected.

## Enlarged Duties

L. V. Boggs, recently appointed vice president in charge of sales of the National Supply Company of Delaware, has just returned from an extended trip to the fields. He began his connection with

*L. V. BOGGS*

the petroleum industry on the Pacific Coast. After several years in employ of an oil company there, during which he had opportunity to gain experience in all branches of the industry, excepting refining, he left the post of superintendent of the company's properties in the Midway field to take a position in the foreign department of a supply company and has continued in that end of the supply business since.

Early in 1921 he joined the National Supply Co. to organize and manage its export business and has been in charge of all its foreign activities since. During most of that service he has been vice president of the National Supply Corporation, the subsidiary through which its foreign business is conducted. As vice president of the National Supply Co., the parent company, he now has general supervision of all matters pertaining to sales activities, facilities and personnel. He is not severing his connection with the export department and will continue as vice president of the corporation exercising general supervision of its activities.

# Congress Intent on Labor Issue Becoming Restive

By HENRY D. RALPH

WASHINGTON, D. C., June 28.—The labor crisis took on a new and acute phase when the big independent steel companies began reopening their mills under the protection of national guardsmen originally sent in to keep the plants closed.

The repercussions from this action were immediate and loud. Never before had the militia been used to support a strike by keeping would-be workers away from their work. City officials and local committees protested vigorously and while there was no charge that President Roosevelt had given orders to the two governors, there was a distinct feeling that the governors had acted on the suggestion of the president, expressed or implied. So strong was this feeling that the orders were rescinded and the troops were retained simply to maintain peace and order while the mills attempted to reopen with whatever workers desired to pass the peaceful picket lines.

One thing the administration could do to improve industrial peace and labor relations is to enact legislation placing some restraints and obligations on labor unions and making them responsible for the fulfillment of contracts with employers. Such a solution has been proposed by some of the steel executives and other industrialists, would be supported by a very large group in congress, and is believed by many to be inevitable. But it would be fought vigorously by practically all labor leaders, and its espousal by the president at the present time would cost him much political support from this quarter. Nevertheless, the tactics of the C.I.O. are greatly disturbing many of the president's party in congress, and they fear the growing public reaction against the union methods will definitely injure the prestige and esteem of the administration. There is a growing feeling that collective bargaining will never be successful until a bargain is made enforceable all around.

### Democratic Picnic

Meanwhile President Roosevelt has been engaging in a little collective bargaining conference of his own, meeting with the exclusive bargaining agency of congress, the Democratic majority, on Jefferson Island in Chesapeake Bay. No written contract, so far as could be learned, resulted from this conference between "the boss" and his "employes." In fact, there remained considerable mystery over whether the real grievances and matters of disagreement were even seriously discussed. Some of the boys complained about long hours and demanded a six-month vacation starting at once, while others brought back the word that the boss was about to apply the "stretch-out system" and make them turn out a lot more work in a short time. There were grounds for suspicion that the boss was attempting to organize something like a company union in congress which would vote to his liking though having all the appearances of genuine collective bargaining.

Beneath the ribaldry which accompanied what the Republicans jeeringly described as an extraordinary session of congress on Jefferson Island there is a serious situation. Not only has congress failed to enact much beyond routine legislation during the past six months but a dissension has been growing in majority ranks which threatened adjournment of the session without action on the president's program of important social measures. The outing was an attempt to ease the tension and smooth ruffled tempers in order to pave the way for a hard legislative drive of a month or two which might result in salvaging part of the program, particularly some sort of wage and hour control bill and a compromise on the president's Supreme Court reorganization plan. How well it succeeded will be proved by developments of the next couple of weeks.

That President Roosevelt has run away ahead of his followers in the matter of social reform and may soon find himself in a defensive position instead of the offensive he has conducted for five years is becoming apparent. The failure of congress to push through his legislative suggestions is due to a realization among the legislators that substantial groups of voters are not anxious to rush into new reforms at the present time. The Supreme Court revamping idea is apparently unpopular with a majority of citizens, farmers are not demanding the administration's ever normal granary and crop production control scheme, and even organized labor is opposing parts of the Black-Connery wage and hour control bill, while several other of the president's suggestions are making little or no progress through congressional committees. Several bills have been pushed to passage in spite of the president's open opposition, notably the bill to continue subsidized low interest rates on Farm Credit Administration loans to farmers.

However, the president has by no means lost control of congress, as was demonstrated twice last week in the senate in votes on the relief and excise tax bills. After a lengthy fight in which several of the administration stalwarts deserted the ranks, the senate passed the $1,500,000,000 relief bill in virtually the form desired by the president, an action which means that congress is willing to let the president continue to have a free hand in spending and allocating funds and that the administration is not yet ready to begin to practice economy very vigorously. The senate also voted down the recommendation of its finance committee that the expiring excise taxes, including that on gasoline, be extended for only one year, and approved the Doughton resolution in the form in which it passed the house and which now keeps these taxes in effect until June 30, 1939. At the same time the administration forces managed to defeat a number of proposals to amend the tax laws in various ways.

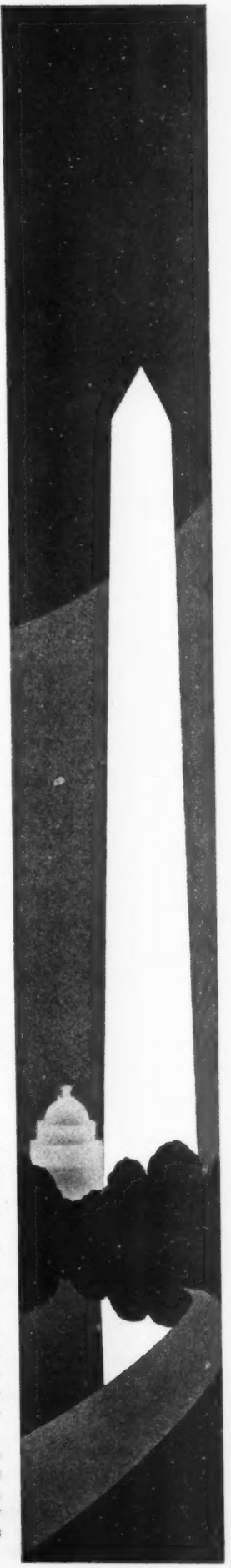
### Leasing of Indian Oil Lands

A bill introduced in the house this week would provide for the leasing of unallocated lands within Indian reservations for mining purposes.

Under the terms of the measure, introduced by Representative Rogers of Oklahoma, such lands might be leased, by authority of the secretary of the interior and the tribal council or other authorized spokesmen for the Indians, for terms not to exceed 10 years and as long thereafter as minerals are produced in paying quantities.

The lands would be offered for sale to the highest bidder at public auction or on sealed bids, and the lessees would be required to furnish corporate surety bonds guaranteeing compliance with the terms of the leases. The secretary of the interior would be authorized to promulgate rules and regulations for operation of leases.

The lands of the Papago Indian Reservation in Arizona, the Crow Reservation in Montana, the ceded lands of the Shoshone Reservation in Wyoming, the Osage Reservation in Oklahoma, and the coal and asphalt lands of the Choctaw and Chickasaw tribes in Oklahoma, would be exempted from the provisions of the bill.



the OIL AND GAS JOURNAL

PRODUCING REFINING NATURAL GASOLINE PIPE LINE

Published weekly by The Petroleum Publishing Company at Tulsa, Oklahoma

# The Last Half

At the start of the last half of the year it may be profitable to take stock and examine the prospects for the balance of 1937.

One of the excuses that used to be offered for the difficulties in the oil industry was the seasonal character of the demand for gasoline, the money product. To take care of that demand it was necessary to run 25 per cent more crude in August than in February. The efforts of producers to provide for these maximum requirements served as a lop-sided stimulus for which the industry had to pay during the remainder of the year.

The rapidly expanding demand for the better grades of fuels during the winter months is rapidly changing this situation. The industry has about reached the point where with minor storage programs at refineries, crude production can be maintained at the same levels throughout the year so far as the demand for products is concerned. This is a development which should simplify proration programs and promote price stabilization.

Today we have plenty of crude and gasoline. While there have been no fields discovered comparable to East Texas or Oklahoma City new reserves have been uncovered in various sections. Some have been simply new sands in old producing areas or important extensions of existing pools. There also have been some entirely new discoveries which may assume major proportions before the close of 1937.

The industry is not threatened with any flood of oil, but it is at least keeping pace in discoveries with demand. The industry, as a whole, so far this year, has returned to crude stocks about what it took out last year.

Unquestionably some of this crude run to aboveground storage was necessary in some cases for minimum working requirements. It is equally apparent additions to storage can not continue indefinitely, and good judgment must emphasize the desirability of maintaining production in line with current requirements without adding to the burden of aboveground inventories in crude oil.

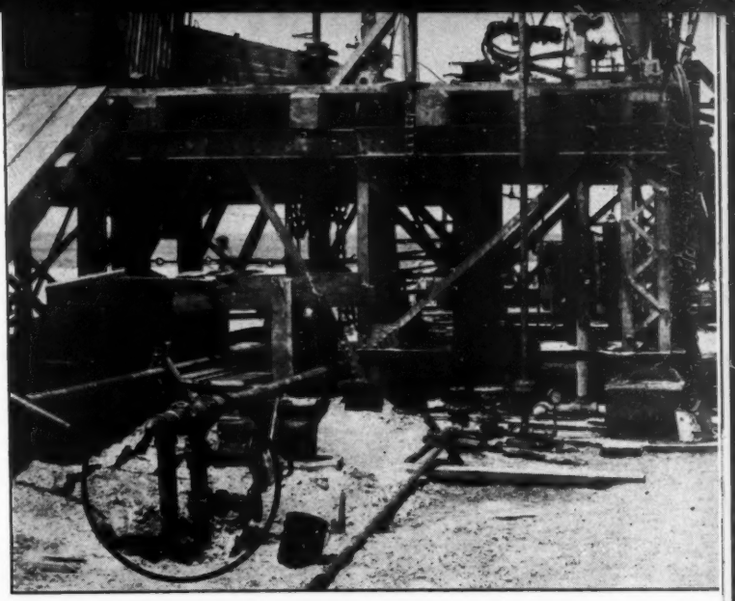
With at least 10 per cent increase in motor fuel demand the present stocks of gasoline, considered by themselves and in their entirety, are not excessive. Unfortunately, the increase in stocks has not been uniform in all parts of the country so that, whereas some sections will need every gallon they now have, there are other areas, particularly in the interior, where motor fuel stocks should be reduced consistently during the next 60 to 90 days so they will not become burdensome at the end of the main consuming season.

The industry at this time is already confronted with the problem of taking care of the expanding markets for fuel of practically all grades. The demand for domestic heating oils has increased during the past few years more rapidly than ever before.

The industry can readily adjust its facilities to the varying requirements of consumers and in so doing eliminate the former ups and downs from the seasonal demand for gasoline.

It is particularly important this situation be kept in mind in entering the closing half of the year. There is no need to pile up excess inventories of crude or refined products because refiners can nowadays make shifts to take care of seasonal needs as they come.

# Permian Basin Recovery Has Been Improved



*Set-up for completion by pressure drilling method, sample trap on discharge line in foreground, and connection of gas line into standpipe*

**By NEIL WILLIAMS**

HOUSTON, Tex., June 28.—Through improved well completion practices, operators in the Permian Basin district of West Texas and Southeastern New Mexico are making possible greater productivity from their wells and effecting recoveries from areas and zones previously regarded as having insufficient porosity for commercial production. Principal production of the district is from lime formation, in which productivity and recovery of oil are dependent upon porosity. Until comparatively recently, areas of tight formation usually marked the limits of production regardless of favorable structural position of wells drilled. Now, much of this acreage is being reclaimed if located so wells will not be too low on the structure to produce. Limits of a number of fields once thought defined are being extended. In some instances, with drilling up of intervening spots of low porosity, fields are being joined, while the way is being opened for proving considerable new production that otherwise might be passed up.

By pressure drilling wells can be drilled in and completed with rotary equipment without the producing formation becoming contaminated with drilling mud or water. With acid treating increased porosity is being effected in the producing horizon, facilitating recovery of oil that otherwise might not be given up. Both practices have been developments of comparatively recent years in the Permian Basin district. While pressure drilling in the district originated in the development of the deep Ordovician production at Big Lake, Reagan County, its inception in a form applicable to general utilization did not come until early 1935.

To Continental Oil Co., in its operations in Southeastern New Mexico, is credited the pioneering of pressure drilling in its present application. This company's first well drilled in by this method was completed March 8, 1935. For the pressure drilling at Big Lake, complete pressure drilling rotary equipment had been provided. In the application of the principle as now practiced, conventional drilling equipment is being used, making the practice available generally.

At first, operators on the whole were skeptical of the feasibility of the method, and for months it met only indifferent acceptance. Within recent months success has led to rapidly increasing adoption.

The difficulty of completing wells in lime formation with mud used in drilling in has been one of the chief objections to rotary rigs in the Permian Basin. With mud, the walls of the hole in the lime frequently became sealed off to such an extent trouble was experienced in getting a well to produce. The varying porosities of the lime and saturated zones could not be determined readily and it was possible for such zones to be passed up entirely. Due to mudding up of the lime formation, wells, on the whole, completed in this way did not show up favorably.

To overcome this trouble some operators adopted the practice of using rotary rigs to drill only to the lime-producing horizon. After setting and cementing casing they would move off the rotary and replace it with a standard rig, unload the mud, and drill in and complete the well with cable tools using oil. This permitted more successful completion but the time and trouble in changing rigs, not including the additional time required for drilling in with cable tools, were objectionable. This practice still is being followed to some extent, but with development of greater control and efficiency in use of the pressure drilling method with rotary equipment, use of cable tools steadily is giving way.

Acid treating as a well completion practice had its inception in the Permian Basin late in 1933 and early 1934. First work met with questionable results and the hazards involved frequently were considered too great, and shooting was resorted to. However, with the gradual development of improved methods of treating, and increasing knowledge of formation conditions, more effective results are being obtained. Acid treating now is playing an increasingly important part in completion and production practices.

In principle, there has been no important change in the method of completing wells under pressure since it was originated. The chief change lies in the development of special equipment which has resulted in greater safety and certainty in drilling in. This, with continued and increasing use of the practice, is bringing greater efficiency.

When the practice was originated operators had only primitive equipment. They used what they had but the equipment available had not been provided for that particular purpose. Manufacturers since have provided pressure control heads and equipment designed specially for this operation.

The procedure followed by operators in the Permian Basin in its simplest form involves circulation of oil instead of drilling mud or water while drilling in the producing horizon. This necessitates means for maintaining back-pressure on the hole, effected by a choke on the discharge line. For rotating

*Control hook-up used for completion by pressure drilling method*

through the pressure control head, flush joint casing is used. With the suction line from the mud pits closed and the hole cleaned of mud, oil is circulated by the mud pump from an oil reserve tank through the drill pipe, as in ordinary rotary drilling, out the casing through the discharge line to the separator, and back to the reserve tank. There also is a line from the separator to storage tanks so when the well starts flowing the by-pass line to the reserve tank can be closed and the oil turned into storage.

A high-pressure gas line is connected into the standpipe so that, when it is desired to test at any level, gas can be injected into the oil circulation stream to kick the well off. Some operators drill in with gas. In this practice, only sufficient oil is kept in the hole to lubricate the bit. Cuttings are removed by gas injected into the well. Recording gauges keep check on the volume of gas in and out.

The time required for drilling a certain footage reflects the hardness or tightness of the formation, permitting the operator to determine the most favorable producing zone from a porosity standpoint. The practice followed by Continental Oil Co. is to record the time for each 10 feet to the casing point, and for each foot thereafter.

Some companies time longer intervals but with the longer intervals it is possible to pass up a break in the formation. With a check on each foot, no changes in porosity of the line are missed. This is of advantage in picking tight spaces in the formation in which to set packers used in packing off gas zones or correcting water encroachment.

### Packer Points

As the selection of suitable packer points is necessary for effective control or shut off of water or gas horizons, the accurate check on porosity of the formations made possible with pressure drilling has been one of the factors responsible for the successful completions. During drilling, close watch of cuttings also is made possible. A sample trap on the discharge line permits catching of samples at any time.

The beneficial results obtained by acidizing are reflected in the good wells now being completed in lime once looked upon as too tight to give up any oil, and in the increased productivity indicated in wells treated. Although some operators, particularly in fields where allowables are not based on potentials, are not inclined to acidize except as a last resort to increase production, an increasing number of operators are acidizing all their wells at completion. This opens up the lime surrounding the wells at the start and results in high potentials.

Acidizing practices vary considerably, although the general trend is toward use of large quantities. Whereas 1,000 to 2,000 gallons once was considered a large treatment, it now is not uncommon for 5,000 or 6,000 gallons to be used, and in some instances 10,000 gallons has been pumped into a well. Many companies are finding it advisable to treat their wells in stages, pumping in only part of the acid at a time. With a 6,000-gallon treatment, only 2,000 gallons might be pumped in at first. Then, when the hole is cleaned, another 2,000 gallons might be injected, and with the hole cleaned again, the remaining 2,000 gallons can be pumped in.

Due to different conditions each well presents an individual problem, and operators have been unable to set down any definite rule on the quantity of acid to be used or the method of treatment. There still is a great difference of opinion among Permian Basin operators as to the action of the acid in the hole, although all seem to be in accord that progress is being made in the work and that increasing benefits are being obtained with use of acid.

# Bureau of Mines Estimate for July Up 57,800-Bbls.

The daily average production of crude oil, estimated by the Bureau of Mines as required to meet the demand in July, 1937, is 3,423,800 bbls., or 57,800 bbls. higher than the daily average estimated for June, 1937, and 453,500 bbls. higher than the actual daily production of July, 1936.

**TABLE 1—ESTIMATE OF REQUIRED CRUDE OIL PRODUCTION BY STATES[1]**

(Daily averages in barrels)

| State— | Forecast July, 1937 | Forecast June, 1937 | Actual prod., April, 1937 |
|---|---|---|---|
| Texas | 1,375,100 | 1,354,000 | 1,382,500 |
| Oklahoma | 629,700 | 625,300 | 680,600 |
| California | 605,500 | 585,900 | 627,200 |
| Louisiana | 253,000 | 252,000 | 240,400 |
| Kansas | 195,600 | 190,700 | 200,900 |
| New Mexico | 100,800 | 102,000 | 104,900 |
| Pennsylvania | 53,700 | 52,400 | 51,500 |
| Wyoming | 52,900 | 51,000 | 51,300 |
| Michigan | 39,800 | 38,400 | 44,100 |
| Arkansas | 28,400 | 28,300 | 26,900 |
| Montana | 16,200 | 15,400 | 17,200 |
| Kentucky | 16,100 | 15,700 | 15,900 |
| New York | 15,600 | 14,700 | 15,200 |
| Illinois | 13,000 | 12,800 | 12,900 |
| West Virginia | 10,700 | 9,700 | 11,000 |
| Ohio | 10,700 | 10,600 | 10,100 |
| Colorado | 4,700 | 4,800 | 4,500 |
| Indiana | 2,300 | 2,300 | 2,200 |
| | 3,423,800 | 3,366,000 | 3,499,300 |

[1]The amounts in this table have been calculated as the requirements for the months stated and are not intended to be calculations of daily average demand for the current year or for any period other than the months stated.

*Current Situation*—Crude oil production during the five weeks, May 1 to June 5, averaged about 3,562,000 bbls. daily. During the period stocks of crude increased 3,974,000 bbls. net, of which 4,127,000 bbls. was in domestic grades, indicating a daily domestic demand during this period of 3,444,000 bbls.

### Motor Fuel

*Domestic Demand*—The domestic demand for motor fuel in July has been estimated as 52,300,000 bbls., or 12 per cent higher than the actual demand for July, 1936. In addition to the long-time upward trend in gasoline consumption per motor vehicle, this gain over the previous year reflects an increasing spread between the number of motor vehicles in use during the winter months and the number in use during the summer months. The estimated number of motor vehicles in use on July 1, 1935, exceeded those in use January 1, 1935, by 1,155,000 (5.0 per cent); this difference in 1936 was 1,300,000 (5.3 per cent), and in 1937 it will be about 1,500,000 (5.9 per cent).

*Exports*—Exports of motor fuel for July have been estimated at 2,800,000 bbls., or 200,000 bbls. higher than the June estimate.

*Stocks*—Stocks of finished and unfinished gasoline amounted to 80,667,000 bbls. on April 30, 1937. According to the American Petroleum Institute gasoline stocks were reduced about 2,450,000 bbls. during May, which would place them at 78,217,000 bbls. as of May 31. The Bureau's estimated reduction in June, which it is indicated at present will be realized, would bring this figure to 74,267,000 as of June 30, compared with 67,377,000 bbls. on June 30, 1936. It is estimated that the industry will draw on these stocks to the extent of 5,300,000 bbls. during the month of July.

*Gasoline Production*—Benzol and "direct" sales and losses of natural gasoline have been estimated as 1,100,000 bbls., making the estimated production of gasoline 48,700,000 bbls. This is distributed among the districts as follows (thousands of barrels): East coast, 6,990; Appalachian, 1,720; Indiana-Illinois, 8,390; Oklahoma, 3,200; Kansas-Missouri, 3,020; Inland-Texas, 3,920; Texas Gulf, 11,220; Louisiana Gulf, 1,630; Inland Louisiana-Arkansas, 980; Rocky Mountain, 1,120; California, 6,510.

### Crude Petroleum

*Runs to Stills*—Natural gasoline consumption at refineries is estimated as 5.7 per cent of the total gasoline required, or 2,780,000 bbls. The yield of straight-run and cracked gasoline is estimated as 45.49 per cent, which, when applied to the estimated straight-run and cracked gasoline production of 45,920,000 bbls., gives refinery requirements as 100,940,000 bbls., a record daily average of 3,256,000 bbls. This throughput probably approximates effective refinery capacity, hence to meet the record demand it seems probable that the relatively high yield (45.9 per cent) and the relatively large withdrawal from gasoline stocks (5,300,000 bbls.) will occur.

*Imports*—Runs to stills of foreign crude have been abnormally low during the early months of this year primarily because of labor troubles in Venezuela. These troubles have now been adjusted and foreign crude runs will probably return to normal. Accordingly, 2,900,000 bbls. is estimated as the amount of foreign crude to be charged to stills during July. This is 300,000 bbls. more than the estimate for June.

**TABLE 2—SUMMARY OF FORECASTS FOR JULY, 1937**

(Barrels)

| | Forecast July,1937 | Forecast June, 1937 | Actual July, 1936 |
|---|---|---|---|
| DEMAND FOR MOTOR FUEL[1]: | | | |
| Domestic demand | 52,300,000 | 48,500,000 | 46,638,000 |
| Exports | 2,800,000 | 2,600,000 | 2,369,000 |
| Total demand | 55,100,000 | 51,100,000 | 49,007,000 |
| SUPPLY OF MOTOR FUEL: | | | |
| Straight-run and cracked gasoline production | 45,920,000 | 43,610,000 | 40,862,000 |
| Natural gasoline used at refineries | 2,780,000 | 2,490,000 | 2,638,000 |
| Total refinery production | 48,700,000 | 46,100,000 | 43,500,000 |
| Benzol and stabilized natural | 1,100,000 | 1,050,000 | 910,000 |
| Decrease in stocks | 5,300,000 | 3,950,000 | 4,597,000 |
| Available supply | 55,100,000 | 51,100,000 | 49,007,000 |
| CRUDE OIL REQUIREMENTS: | | | |
| Per cent yield of gasoline from crude | 45.49 | 45.46 | 44.55 |
| Refinery crude required | 100,940,000 | 95,930,000 | 91,709,000 |
| Foreign crude runs | 2,900,000 | 2,600,000 | [2]2,647,000 |
| Exports | 5,200,000 | 4,650,000 | 4,458,000 |
| Fuel and losses | 2,900,000 | 3,000,000 | 3,214,000 |
| Total demand for domestic crude | 106,140,000 | 100,980,000 | 96,734,000 |
| Decrease in stocks | ..... | ..... | 4,656,000 |
| Required production | 106,140,000 | 100,980,000 | 92,078,000 |
| Daily average | 3,423,800 | 3,366,000 | 2,970,300 |

[1]The term "Motor Fuel" as used in this report includes gasoline, naphtha, and benzol used for all purposes but does not include heavier distillates used in the operation of tractors or burned in Diesel engines.
[2]Imports.

## Texas Allowable Is Increased Over Bureau 10,376 Bbls.

AUSTIN, Tex.—Texas allowable production for July was set at 1,385,476 bbls. daily by the Railroad Commission, 10,376 bbls. above the market demand estimated by the Bureau of Mines.

The July state allowable is 35,214 bbls. greater than for June, which was 4,138 bbls. under the bureau's estimate. The bureau's July estimate of 1,375,000 bbls. daily was 20,700 bbls. higher than for June.

The schedule by districts follows (in barrels):

| District— | June 1 | June 17 | July 1 |
|---|---|---|---|
| East Texas | 462,000 | 465,033 | 466,000 |
| Panhandle | 76,048 | 77,464 | 77,017 |
| Moore County | 1,348 | 1,348 | 1,348 |
| Osborne area | 635 | 635 | 635 |
| North Texas | 60,450 | 62,646 | 61,000 |
| Foard County | 550 | 550 | 675 |
| West Central Texas | 65,460 | 68,552 | 67,848 |
| West Texas | 172,492 | 181,892 | 177,040 |
| East Central Texas | 76,269 | 83,050 | 82,601 |
| Rodessa | 35,068 | 36,048 | 36,048 |
| Southwest Texas | 213,667 | 233,693 | 221,973 |
| Gulf Coast | 186,275 | 197,201 | 193,291 |
| Total | 1,350,262 | 1,407,562 | 1,385,476 |

Chairman C. V. Terrell referred to the new allowable as a cut by comparing it to June 17 commission figures showing Texas was underproducing its allowable.

"Approximately one-half of this cut," he said, referring to the reduction of 22,086 bbls. from the June 17 schedules, "was a result of checking underproduction as reflected on the May reports which show the actual production. The other one-half was the result of equalizing allowable production between fields and between districts.

"It may be significant to point out that during the last 12 months the state of Texas underproduced the commission's authorized allowable production 2¼ per cent. This was occasioned by the natural decline in submarginal wells, together with shutdowns for mechanical and physical difficulties causing wells to produce less than the allowable assigned them."

Commissioner Ernest O. Thompson is en route home from the Paris World Petroleum Congress. Commissioner Lon A. Smith, an advocate of higher allowables, signed the order when no reduction was made in East Texas. The East Texas field was retained upon a basis of 2.32 per cent of the average hourly potential, estimated to permit production of 466,000 bbls. and on June 17 it was reported at 465,033 bbls. It may increase during July in the same ratio as of the first 17 days of June as drilling is reported active.

V. E. Cottingham, chief production engineer, said pressure on June 12 was 1,163.26 pounds, a decline of 1.5 pounds from May 12, or .104 per 1,000,000 bbls. withdrawal.

## Oklahoma Allowable

The Oklahoma Corporation Commission has fixed Oklahoma's allowable at 629,700 bbls. a day, as recommended by the Bureau of Mines, 4,400 bbls. more than for June. Percentages set for pools:

Class A—Oklahoma City (Wilcox), 12; Class B—Keokuk Falls, 11; Lucien, 10.75; all others, capacity flow; Class C—Billings-Wilcox, 7.5 and Jesse, 7, and both transferred to B group; North Bethel, 9; South Britton, 5; Crescent, 2; Edmond, 2.4; Fitts-Hunton, 3.75; Fitts—Upper Simpson, 6.3; Fitts-Wilcox, 5.1; Langston, 13.5; North Lucien, 12.5; Moore, not available yet; East Sasakwa-Wilcox, 12, and North Wellston, 20.

The commission also signed an order fixing the potentials decline in the Oklahoma City Wilcox zone at 5 per cent per month, effective July 1. Potential decline as previously recommended for Class B and C pools also was adopted, with Class C effective August 1, Class B on July 1.

## Louisiana Allowable Up

NEW ORLEANS, La.—The State Department of Conservation allowable for July in Louisiana shows an increase of 9,200 bbls. daily; 5,500 bbls. daily in South Louisiana and 3,700 in North Louisiana. The totals are 263,850 bbls. in the state—181,350 in South Louisiana, 82,500 in North Louisiana.

At Rodessa allowable was set at 50,000 bbls., with acreage factor of 1 acre equals 4.6889 bbls. and bottom-hole pressure factor of 1 pound equals 0.0657 bbl. The area allotted to oil wells is 7,037.9 acres.

The Lisbon daily average allowable was set at 10,250 bbls., with 7,688 bbls. allocated to acreage and 2,562 bbls. to bottom-hole pressure. The area allotted to oil wells was 792.3 acres. The acreage factor was placed at 1 acre equals 9.70339 bbls. and the bottom-hole pressure factor at 1 pound equals 3.82243 bbls.

## THE MARKETS*

CRUDE OIL: *No changes in posted schedules. Considerable discussion as to probable price trends over the second half of the year, with wide differences of opinion. Majority feel schedules will continue at present levels over the next several weeks. State allowables assure July production will be higher than in June.*

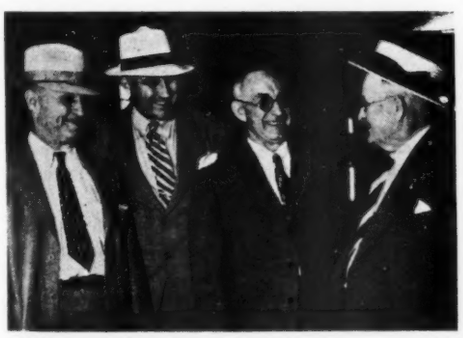
REFINERY: *For the first time in several months spot gasoline reduced in the Mid-Continent and Middle West. Lower tankcar prices follow recent reductions in dealer and tank-wagon schedules which resulted in contract prices being lower than spot quotations. Kerosene prices also lower in Mid-Continent, with quotations firm in other sections. All grades of fuel strong.*

TANK-WAGON AND SERVICE STATION: *Scattered exchanges in gasoline prices in Pennsylvania and Delaware. Gasoline service station prices continue below normal at several points.*

FINANCIAL: *Weakness in general market keeps oil stocks from reflecting strong earning position of the industry during second quarter. Average of 30 stocks for week ending July 26: High, 39.81; low, 38.55; close, 39.29. Week ending July 19: High, 39.71; low, 38.55; close, 39.29.*

**Detailed information in market section.*

## AT FINDLAY'S CELEBRATION



Twin brothers from the West return to Findlay, Ohio, for the Golden Celebration of Oil and Gas. They are F. H. Yealy, Pampa, Tex., independent operator (left), and L. J. Yealy, Shelby, Mont., who identifies himself as "herding oil wells and pipe lines." Between the brothers is Jerry Coons, Pittsburgh, Pa., with National Tube Co. At the right is H. F. Moran, Findlay, general superintendent of Ohio Oil Co.

## LED GULF OUTING

Rush Greenslade, executive vice president, and S. G. Sanderson (left), head of the production department, accompanied Mid-Continent employes of Gulf Oil Corp. and Gulf Refining Co. to Dallas, Tex., June 26, which was Gulf day at the Pan American and Greater Texas Exposition.

## Texas Well Spacing Law Test

AUSTIN, Tex.—The Texas supreme court has agreed to review a comprehensive appeal involving Rule 37 of the Railroad Commission, regulating the spacing of oil wells and the court of civil appeals announced cases pending there would await the high court's ruling next fall.

## OBITUARIES

**JOHN G. MORRIS,** Laredo, Tex., died in San Antonio recently. He was president of Allied Drilling Co., active in the development of South Texas field.

**W. HIGH JOHNSON,** 46, was drowned in White Rock Lake at Dallas, Tex., last week. He was assistant treasurer and cashier of Magnolia Petroleum Co. and of Magnolia Pipe Line Co.

**W. H. LOVE,** 63, of Tulsa, attorney for the Prairie Oil & Gas Co. for 30 years, died June 24. Born at Newcastle, Pa., he moved to Neodesha, Kans., when 27 and became chief clerk and attorney for the land department of the Forest Oil Co. He moved to Tulsa in 1932 entering the legal department of the Sinclair Prairie Oil & Gas Co.

**JOHN V. RITTS,** 84, president of the Butler County National Bank of Butler, Pa., a director of the Devonian Oil Co. of Tulsa, and veteran oil operator in the Appalachian and Mid-Continent fields, died at Butler, June 23. He was the father of Leonard C. Ritts, vice president and treasurer of the Devonian Oil Co. Mr. Ritts was born at St. Petersburg, Pa., and had been in the oil industry since his fifteenth year, he and the late J. H. Evans, widely known as "Uncle Joe," beginning their oil careers together in the Butler area.

# Pipe Line Activity

### Texas Contracts Let

HOUSTON, Tex.—Humble Oil & Refining Co. has let contract for 39 miles of 8-inch welded gas line from its Satsuma station in Harris County north of Houston to its Baytown refinery. The line will take care of the increase in capacity needed when the company completes its gasoline plant at the Tomball field. The line will be laid by Latex Construction Co.

American Petroleum Co. has let contract to Latex Construction Co. for 15 miles of 6-inch welded oil line from the Spurger field in northeastern Tyler County to Silsbee field in Hardin County where it will tie into Atlantic Refining Co. main trunk line, north of the field. The pipe is being taken up from a short gathering line in the East Texas field from Kilgore to Amego.

## Keystone Extension to Buffalo

Gasoline distribution by pipe line from the Atlantic seaboard is to be spread to the two largest cities on the eastern end of the Great Lakes chain and intervening territory by Keystone Pipe Line Co., motor fuel transportation unit of Atlantic Refining Co.

Construction on the Keystone extension from Williamsport, Pa., north to serve Buffalo and Rochester, N. Y., with arteries at many of the larger points of population along the route will start about July 1 and will be completed about November 1. The extension is being put in in conjunction with Buffalo Pipe Line Corp.

The 213 miles of new pipe line will be 8-inch. The route from Williamsport, Pa., north passes just west of Elmira, N. Y., and then leads almost directly to Caledonia, in northwestern New York. At Caledonia, one branch will run east and a little north to Rochester and the other branch will run west to Buffalo.

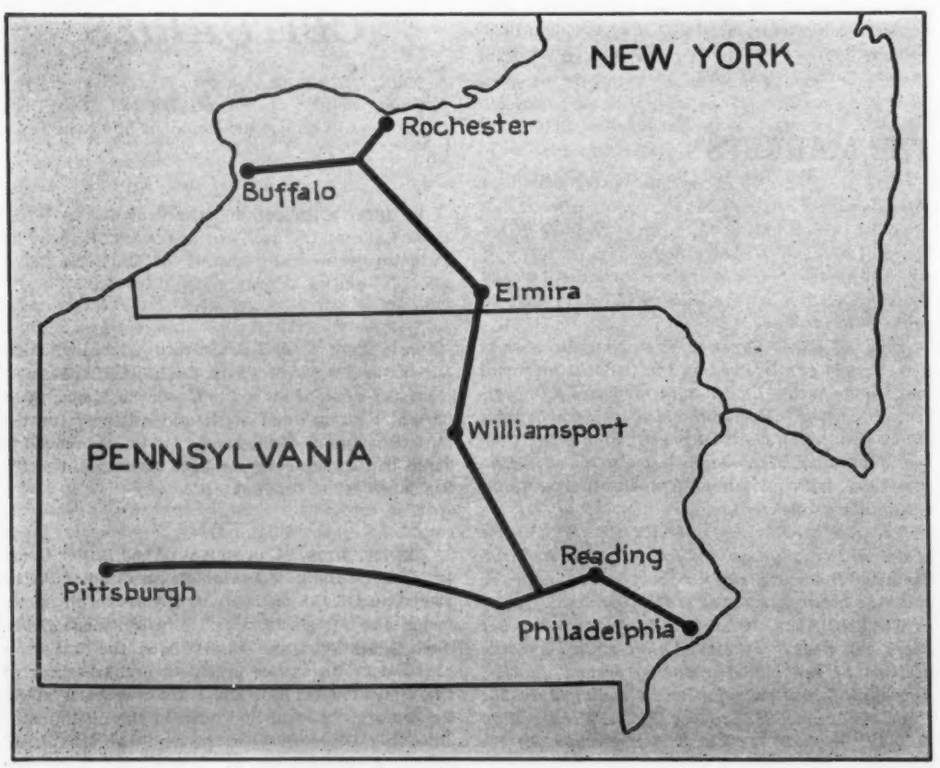
National Tube Co. of Pittsburgh has been awarded the pipe contract. The line will be welded throughout. Jones & Hanrahan of Dallas, Tex., received the construction contract.

Total cost of the line is estimated at approximately $1,700,000. About $1,000,000 of the total cost will be required to cover the equipment and remainder for construction.

In addition to the new gasoline line announced last week, Keystone is now nearing completion of another similar artery from West Philadelphia to Reading, Pa., only a short artery in comparison with the project to Buffalo and Rochester.

Service of the western New York state market through the pipe line will give Atlantic Refining Co. a network of such distribution facilities in the two states. The company operates a line from Philadelphia to Pittsburgh, to Fullerton, Allentown, Kingston and Williamsport. All of the gasoline line terminals, excepting Pittsburgh, are rather closely grouped in the southeastern part of Pennsylvania. While the Buffalo and Rochester markets are the chief objectives of the new line announced last week, there are several attractive points between Williamsport and the terminals which can be served by this less expensive medium after November.

Subsidiary gasoline pipe line companies of Sun Oil Co. are extensive operators of distribution facilities in the northeast along with affiliates of Atlantic. The Sun company's longest line originates at Marcus Hook and extends to Syracuse in north central New York. Sun also operates a line to Pittsburgh, to Newark, N. J., and to smaller cities in the southeastern part of Pennsylvania.




*Keystone pipe line system*

### Virginia Gas Project

Plans for a natural gas line in the Shenandoah Valley, Virginia, to serve Woodstock and other towns, have been submitted to the Woodstock town council by Charles M. Hopkins, who said that following investigations by engineers he believed a large supply of natural gas lies under Brooks Gap.

### Bradford Transit Takes Over Eldred

Clayton W. Morrison, of Bradford, Pa., vice president and general manager of the Tide Water Pipe Co., Ltd., announced that the Bradford Transit Co. will on July 1 take over the operation of the gathering lines owned and at present operated by the Eldred refinery, under the Pennsylvania Oil Products Co. of Warren.

# Natural Gas

### Eastern Gas Properties

HARRISBURG, Pa.—The Public Utility Commission has been asked to approve the sale of oil and gas properties in Cross Creek and Jefferson townships, Washington County, by Peoples Natural Gas Co. to Manufacturers Light & Heat Co. for $40,650. The properties consist of oil and gas leases, pipe lines, right of way, and gas purchase contracts.

Peoples Natural Gas Co. also sought commission approval to purchase similar property in Penn and Hempfield townships, Westmoreland County, from Greensboro Gas Co., Pittsburgh, for $26,220.

### Gas for San Antonio Schools

SAN ANTONIO, Tex.—The use of natural gas for heating in 26 public schools where gas is now available or will be on completion of schools now under construction, would result in a saving of $8,125 annually, E. H. Kifer, utility engineer for the school board, said. The San Antonio Public Service Co. is prepared to sell the school board natural gas at 15 cents per 1,000 feet.

### Lone Star Dividend

PITTSBURGH, Pa.—A dividend of 20 cents on common stock of Lone Star Gas Corp. was declared by directors, payable August 21 to record July 21. A similar dividend was paid April 20. A quarterly dividend of $1.63 on the 6½ per cent preferred stock was also declared payable July 31 to record July 14.

### California Operations

LOS ANGELES, Calif.—In Rio Vista gas field of Solano County, Amerada Petroleum Corp. No. 2 Marks is flowing 37,560,000 feet per day through a 1-inch bean under a pressure of 1,630 pounds on the tubing and 1,460 pounds on the casing. It was bottomed at 4,475 feet and finished with 223 feet of 4¾-inch liner carrying 185 feet of 60 mesh and 4,468 feet of 1½-inch tubing. Amerada has one other well drilling in the field, No. 1 Triquelro in section 24-4-2, which is expected to be ready for a production test within a fortnight.

In San Joaquin County, Standard Oil Co. has

reached 5,308 feet in No. 1 Woods Community in section 24-1-5. A formation test at 4,450-90 feet resulted in recovery of a quantity of salt water. This well is in the Middle River area.

In the Roberts Island district of San Joaquin County, Texas Co. has spudded No. 1 Lawrence-Stephens in section 8-1-6.

### Carbon Plant Hearing

The Oklahoma Corporation Commission closed the hearing last week on application of Stanley Marsh, Jr., Amarillo, for permit to construct and operate a carbon black plant or plants in Texas County of the Oklahoma panhandle.

Mr. Marsh, who holds 100,000 acres of Texas County under oil and gas lease, informed the commission the Amarillo firm of Hagy, Harrington & Marsh is ready to expend $1,100,000 in immediate erection of the plant, which would consume 60,000,000 feet of gas daily. The Marsh interests also plan to drill 30 wells to produce the needed gas supply, at a cost of $18,000 each.

Albert C. Hunt, Oklahoma City attorney, protested the Marsh petition on behalf of Ben H. Ashe, Tulsa, who holds a corporation commission permit made final in April for erection of a carbon black plant in the county. Mr. Hunt told the commission that, but for the application of Marsh, filed in May, his client would be under way with construction of his plant.

Chairman Reford Bond of the commission granted Mr. Hunt five days for filing a protest brief and gave Mr. Hayes the time to file an answer for the Marsh interests.

### Union Gas Meeting

TORONTO, Ontario—At a special shareholders meeting of Union Gas Co. on June 8, resolutions presented by Eugene Coste for the ousting of President S. A. Morse and three other directors were defeated by the shareholders.

### To Review Rate Case

AUSTIN, Tex.—The Supreme Court agreed to review a case in which a court of civil appeals had held Humble Oil & Refining Co., so far as a contract with M. & M. Pipe Line Co. was concerned, was a public utility and its rates on gas from the Raccoon Bend field of Austin County were subject to regulation by the Railroad Commission.

# Natural Gasoline

### Humble to Build Plant

Construction is to begin shortly on a natural gasoline plant for the Humble Oil & Refining Co. in the Dickinson field of Galveston County, Texas, The contract for building the plant was let to the Western Supply Co. of Tulsa. The plant will have a capacity of 25,000,000 feet of gas daily.

Of the well pressure type, the process will not entail the installation of compressors, but will require absorbers and stabilizers. Estimated cost of the plant is $250,000.

This marks another step in the current program of natural gasoline expansion for the Humble company. The new plant, located in the Tomball field of Harris County, is nearing completion and will be in operation within a month, it is expected. In addition, the Humble Oil & Refining Co. is reported negotiating for the construction of a third new plant in the Flour Bluff field of Nueces County, South Texas. Production in that field is shared by Humble, Barnsdall Oil Co. and Flour Bluff Corp.

# Refinery Expansion

### Talco Refinery Operating

The Talco Asphalt and Refining Co. of Dallas will be ready to start up its $1,500,000 oil refinery and asphalt plant at Mt. Pleasant this week. At first only the skimming unit will be operated. The cracking unit has not been completed but work is progressing on schedule.

The plant is located a mile west of the town and is operating on crude oil piped from the Talco field, about 18 miles to the north in the northwest corner of Titus and the northeast corner of Franklin counties. The gravity of the oil from this field is low, and the plant was constructed to make asphalt for road construction. Capacity of the plant, when completed, will be between 5,000 and 7,000 bbls. of crude per day.

Those forming the company are Capt. J. F. Lucey, D. Harold Byrd, Jack Frost and Ralph E. Fair, all of whom have production in the Talco field. They also own a pipe line company, the Talco Pipe Line Company, which gathers oil in the field and owns the line connecting the field with the plant. Some 350,000 bbls. of steel storage was erected at the plant and another 200,000 bbls. of storage was erected in the field by the company. The line is handling around 8,000 bbls. per day, with some 200,000 bbls. of crude standing in storage waiting on the plant to start operating.

J. K. MacKinnon is general manager of the plant and C. O. Garbrecht is superintendent.

### Start Cabot Plant

WICKETT, Tex.—Part of the new carbon black manufacturing plant of the Cabot Co. at Wickett has been placed in operation. It has a capacity of 30,000 pounds daily and will burn approximately 20,000,000 cubic feet of residue natural gas daily in the manufacture of carbon black.

The company has also started construction on a similar plant at Kermit, Winkler County, and plans to build a natural gasoline plant near here.

### Lion Starts Water Shipments

EL DORADO, Ark.—The Lion Oil Refining Co. shipped approximately 9,000 barrels of gasoline by barge this week from its local plant. This is the first gasoline to be moved by water from refineries located in this territory. The company has established a terminal at Champagnolle on the Ouachita River from which it will ship oils by water to points along the Mississippi River and will reach points in the Mississippi Valley throughout the South and points along the Ohio River.

### Burford Takes Option

Freeman W. Burford, president of the East Texas Refining Co., has obtained an option to purchase the Griswold Refining Co. plant, now shut down at McCoy, La., just north of the Rodessa field. He is expected to exercise this option soon. and begin refining of crude oil to be developed from his extensive properties in the Arkansas portion of the Rodessa field. This operation will be tied in with the East Texas Refining Co.'s absorption and blending gasoline plant in the Rodessa townsite.

### Ashland Buys Building

ASHLAND, Ky., June 28.—Paul G. Blazer, president of the Ashland Oil & Refining Co. announced today the purchase, by his company, of the six-story Josselson Building located in the heart of the city's business section.

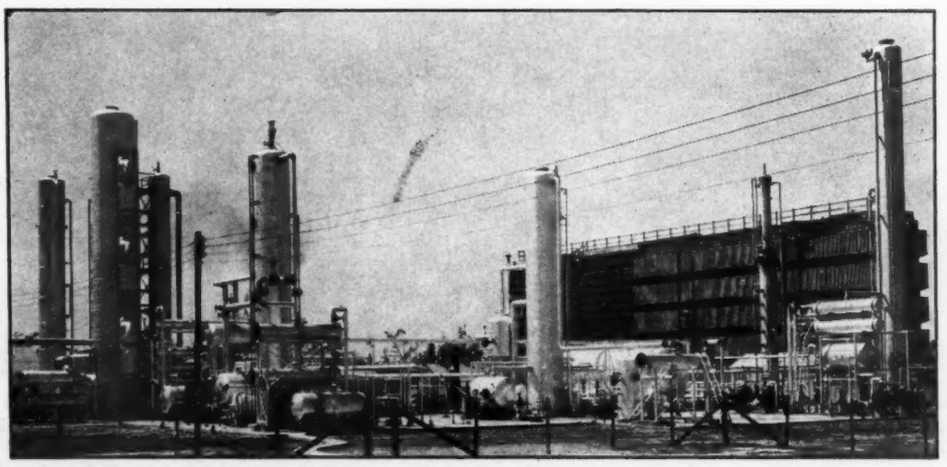
### Start General American Plant

GLADEWATER, Tex., June 26.—Reconditioning work is being rushed at the General American Refining Co.'s plant here to get it ready for reopening July 1 when a test run is to be made. This refinery has been closed several months.

Ample supply of crude oil is assured for operating the refinery at full capacity of 5,000 bbls. per day, although plans are to start at approximately 3,500 bbls. per day.

### Globe Adds to Capacity

McPHERSON, Kans.—The Globe Oil & Refining Co. is increasing the capacity of its refinery here by 3,000 bbls. daily through installation of an additional tube still which was designed by Globe engineers. Cost of the improvements is reported at $100,000.



*Butane and natural gasoline fractionating equipment in Hanlon Gasoline Corp. plant at Gladewater, Tex.*

# Oil News from Foreign Lands

## Trouble in Trinidad

Labor troubles in the South American oil fields spread to Trinidad where several men were killed and a greater number seriously injured before two ships from the British navy were sent to the island and their personnel assigned to duty of restoring order.

Practically all activity was suspended in the oil fields which led to reports of wasted production and inability of refineries to obtain crude. Gasoline sales were suspended during the height of the disturbance which was marked by clashes between police and strikers. Details of the demands by workers had not reached this country, but generally the laborers asked for more pay, shorter hours and other considerations.

The Trinidad oil industry engages approximately 7,800 men. There are 16 companies operating and production averages in excess of 41,000 bbls. daily. During 1936, total production of crude petroleum amounted to 13,237,030 bbls., according to figures recently released by the U. S. Department of Commerce. The production last year was an increase of 13.4 per cent over 1935 when output totaled 11,671,224 bbls. Production so far this year is on a basis indicating total of more than 15,000,000 bbls. for the entire period, or nearly 41,100 bbls. daily.

That the petroleum industry is an important link in Trinidad's economic life is indicated by records of exports. During 1936, exports of petroleum and refined products totaled 12,405,222 bbls., valued at $15,910,638 as compared with 10,993,540 bbls., valued at $13,321,708 in 1935.

## German Gasoline Imports Drop

First tangible effect of Germany's national policy to establish self-sufficiency in the production of motor fuel is reflected in gasoline import statistics for the first quarter of 1937. Imports of gasoline recorded the first drop, of considerable proportions, after several years of steady expansion, notwithstanding continuing gains in national motor fuel consumption resulting from progressive intensification of Germany's motor traffic.

While the rising trend in imports of diesel oil has not yet been reversed as in the case of gasoline, there nevertheless are clear signs of the domestic production program as represented by the first sharp retardation in upward trend of imports of diesel oil from their previous rapid rate.

Effects of the intensified production of synthetic motor fuels in Germany and Chancellor Hitler's decrees compelling their use are shown in the following tables:

**GERMANY'S IMPORTS OF MOTOR FUEL**

(In Metric Tons)

| Year— | Gasoline | Diesel oil |
|---|---|---|
| 1933 | 1,004,758 | 467,348 |
| 1934 | 1,158,385 | 639,916 |
| 1935 | 1,224,344 | 882,993 |
| 1936 | 1,324,651 | 1,081,326 |
| **FIRST QUARTER IMPORTS** | | |
| 1935 | 224,972 | 149,606 |
| 1936 | 258,537 | 204,121 |
| 1937 | 203,615 | 212,291 |

It is estimated Germany's current production of gasoline has attained the rate of 1,600,000 metric tons per year, equivalent to about 75 per cent of the total national requirements, estimated roughly at around 2,400,000 metric tons by the American consular office.

The current production compares with around 600,000 metric tons or only 37 per cent of the requirements for the 1932-33 period. With the rapid addition of synthetic gasoline plants now under constructed or projected, it is anticipated Germany will attain virtually complete national self-sufficiency in gasoline within a year or two. Upwards of 70 per cent of the motor fuel will be supplied by domestic synthetic gasoline and the balance by refining of domestic crude oil, domestic benzol and domestic alcohol and methanol.

## Australian Imports Up

Crude oil and kerosene imports by Australia are on the up grade this year, it is indicated by a report covering the first three months issued through the U. S. Department of Commerce. Kerosene imports at 10,033,816 gallons for the first three months of the year are more than 20 per cent higher than in 1936. Practically all sources of supply benefitted from the higher imports, but the Netherlands East Indies remain the dominant supplier.

Increased crude oil imports by Australia came chiefly from Persia and to a less extent from the Netherlands, United Kingdom and the United States.

Lubricating oil import requirements dropped from 4,670,832 gallons for the first three months of 1936 to 3,381,829 gallons for the same period this year.

A drop was also registered in motor fuel imports which declined from 70,989,737 gallons in the first quarter of 1936 to 68,633,462 gallons in the first three months of 1937.

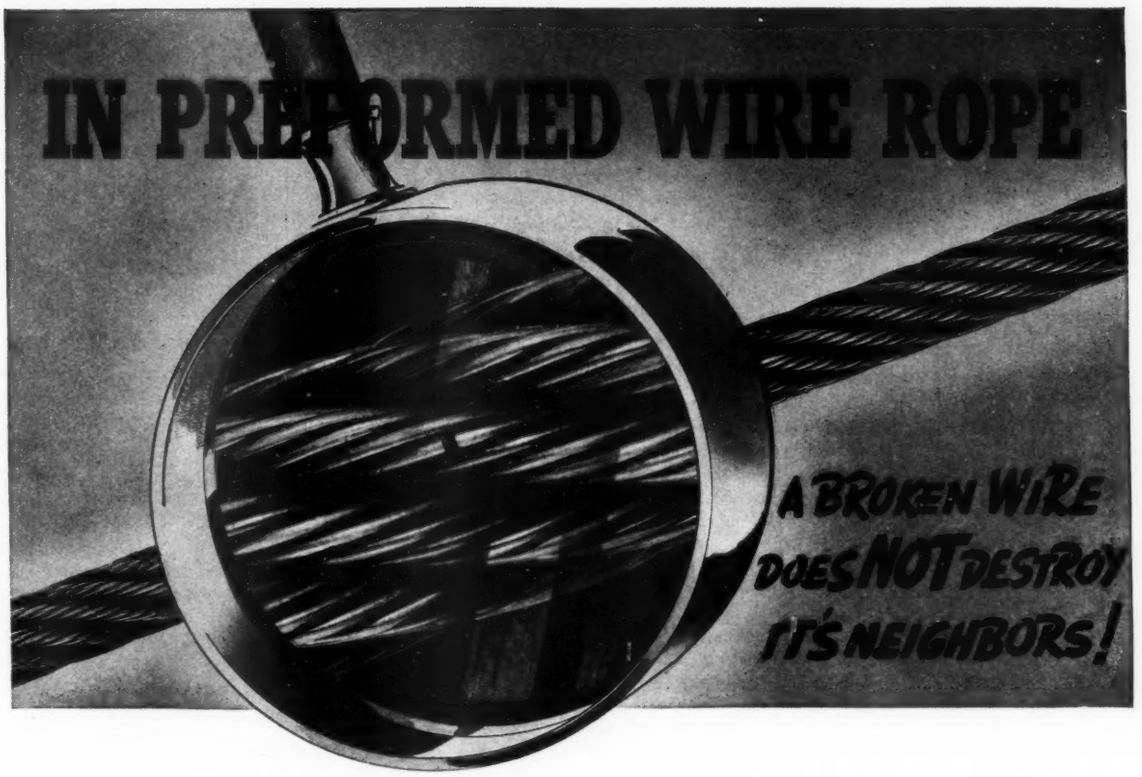
Detailed figures on the volume of imports for the first quarters of 1937 and 1936 are shown below with the supplying country listed:

**KEROSENE IMPORTS**

(Figures in Gallons)

| Country of origin— | First quarter 1937 | First quarter 1936 |
|---|---|---|
| British Borneo | 528,980 | 22,000 |
| Netherlands E. I. | 7,263,407 | 6,851,024 |
| Persia | 876,740 | 345,490 |
| United States | 1,406,689 | 1,373,977 |
| United Kingdom | 8,000 | 7,178 |
| Total | 10,033,816 | 8,600,669 |
| **LUBRICATING OIL** | | |
| United Kingdom | 50,452 | 31,038 |
| Belgium | 8 | 5,946 |
| Germany | 140,622 | 218,945 |
| Mexico | 1,760 | 9,747 |
| Netherlands E. I. | | 8,105 |
| Russia | 54,710 | 17,526 |
| Denmark | | 5,468 |
| Latvia | | 880 |
| United States | 3,134,277 | 4,373,177 |
| Total | 3,381,829 | 4,670,832 |
| **CRUDE OIL** | | |
| Netherlands E. I. | 7,909,100 | 7,116,476 |
| Persia | 10,453,930 | 6,780,190 |
| United Kingdom | 4,308 | |
| United States | 4,314 | |
| Total | 18,371,652 | 13,896,666 |
| **MOTOR FUEL** | | |
| United Kingdom | 22 | 853 |
| Germany | | 53 |
| Netherlands E. I. | 46,590,388 | 39,870,424 |
| Persia | 6,162,345 | 7,585,625 |
| Rumania | | 2,557,069 |
| Iraq | | 436 |
| Soviet Union | 44 | |
| United States | 15,880,663 | 20,975,277 |
| Total | 68,633,462 | 70,989,737 |

*Staff of Apex (Trinidad) Oilfields, Ltd., assembled on the field on the occasion of the retirement of Lt. Col. H. C. B. Hickling, C. B. E., D. S. O., M. C., from the management, a position he had held since the inception of the company in 1919. H. D. Fletcher succeeds to the management and L. A Bushe takes his place as assistant manager. Back row: G. W. Robinson, D. S. Treble, A. F. Castle, E. G. Rooks, T. M. Harries, J. Burslem, R. I. Maclachlan, C. L. Stoute, L. M. Berry, H. W. Reid, J. Y. Rountree, F. G. Burslem, H. C. Hobson, S. S. Scott, A. C. Packer, M. A. Rust, J. Bushell, J. A. A. Kernahan, F. R. Wellings; seated: J. Murray, L. S. Henzell, M. A. K. Murray, R. A. Adamson, H. A. Harris, H. D. Fletcher, H. C. B. Hickling, L. A. Bushe, A. P. Till, A. H. Richard, G. H. Scott, A. H. Baker, C. J. Miller; front row: K. D. Macgillivray, C. S. McMullen, G. Lynch, A. J. Pounds, D. J. Phillips, H. Costelloe, J. W. Knights, L. R. de Verteuil, C. C. Marks*




*Select the Rope that Fits Your Job*

Protruding wires lap over adjacent wires as a wire rope passes over a sheave thus nicking the adjacent wires and causing rapid destruction of the rope. A broken outer wire in a preformed rope remains in its normal position. A broken outer wire in a non-preformed rope has a decided tendency to protrude. In cases where safety factors permit the continued use of a rope with a few broken wires, the additional service of the preformed rope after the first broken wires appear will in itself warrant the additional cost. Write us about your use of wire rope and we will gladly tell you whether or not preforming will save you money.

•

WICKWIRE SPENCER STEEL COMPANY, *General Offices:* 41 East 42nd Street, New York. *Sales Offices and Warehouses:* Worcester, New York, Chicago, Buffalo, San Francisco, Los Angeles; *Export Sales Dept.:* New York.

WICKWIRE SPENCER SALES CORPORATION, New York, Chattanooga, Tulsa, Portland, Seattle.

**WIRE ROPE**
*by Wickwire Spencer*

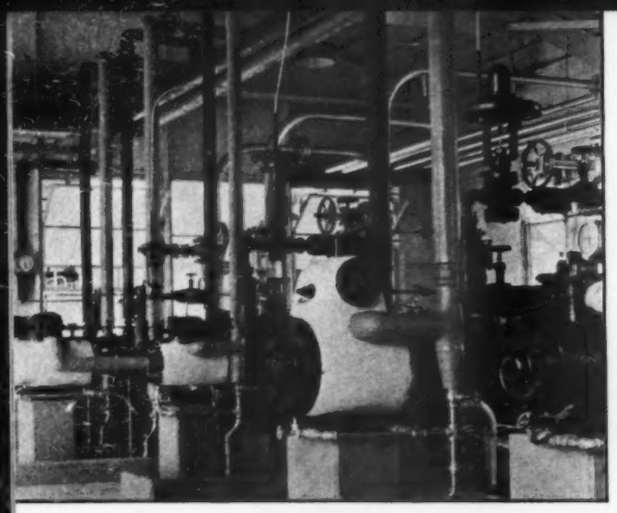
WICKWIRE SPENCER STEEL COMPANY
41 East 42nd St., New York City
Please send me my free copy of your popular, new money saving manual, "Know Your Ropes".

Name_____

Firm_____

Address_____

City_____ State_____ O.G.J.



*Pumphouse as part of new butane-propane unit*

# New Tide Water Propane Unit Is

By H. STANLEY NORMAN

In order to utilize most advantageously all fractions of the crude oil processed, Tide Water Associated Oil Co. recently completed the installation of a butane-propane unit at its Bayonne, N. J., plant. This unit has been in operation for only a few weeks but has lived up to all expectations from an operating standpoint.

The construction of this equipment might better be considered the completion of the second phase of their new gas-recovery system than the addition of another process. The layout of the two units, as indicated by the flow diagram, takes full advantage of straightline flow from the rich gas entering the compressors of the gasoline-recovery system to the loading rack which was especially designed for handling liquefied butane and propane.

### Cooled by Salt Water

Overhead vapors from the gasoline-recovery unit are condensed in salt water condensers and collected in the reflux accumulator which acts now in the dual capacity of storage tank for reflux to that tower and feed tank for the butane tower. Feed must be pumped through steam heaters to the butane tower as the latter operates at approximately 50 pounds greater pressure than the preceding one. Commercial butane is withdrawn from the reboiler through a salt water cooler to butane storage tanks. Overhead vapors from this tower are condensed in the butane reflux condenser. As described for this tower, the feed is pumped to the propane column, operating at 450 pounds pressure. Commercial propane from the bottom of this tower flows through an exchanger, preheating the feed, previous to the water cooler from which it flows to propane storage tanks. The overhead from this column, the last of the line, is condensed to supply necessary reflux. Water is removed with the ethane and lighter in overhead vapors.

Of particular interest is the flow which insures the removal of all moisture from the propane tower with the overhead gases. By taking advantage of this layout it is possible to obtain propane passing the cobalt-bromide moisture test (showing minute traces of water) without resorting to the installation of cumbersome and expensive dehydrating equipment. It is essential that propane, for domestic use particularly, be free from moisture as the low temperatures produced by the liquid when expanding to the gaseous state would readily form ice which would interrupt flow. The dryness of the product from their unit justifies the decision of the Tide Water engineers to use this design.

The purity of the commercial butane and propane being produced from this plant is exceptionally high. During a recent test run it was 99.4 per cent in both cases in comparison to 95 per cent required to meet commercial standards. Analyses of the feed and products during this test period are shown in Table 1.

**TABLE 1—COMPOSITION OF FEED AND PRODUCTS**

(Per cent)

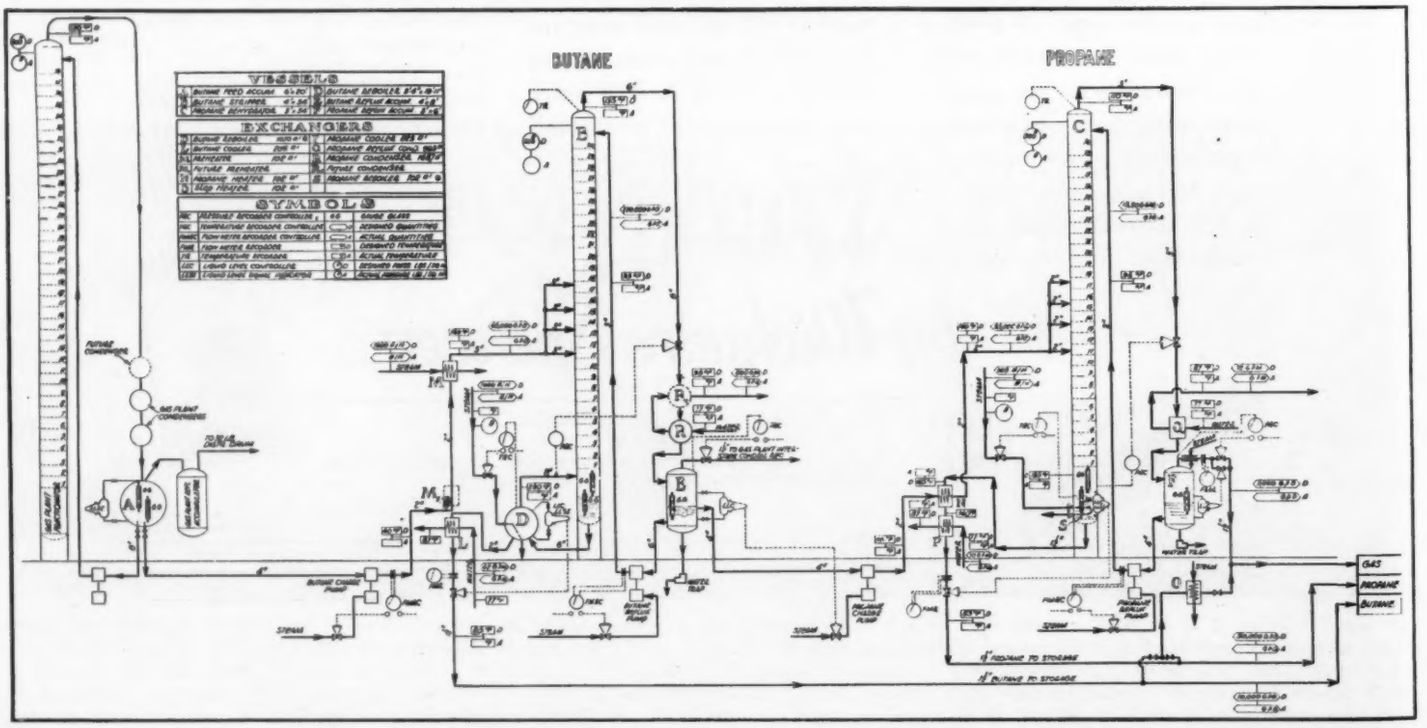
| | Charge | Butane product | Propane product | Residue gas |
|---|---|---|---|---|
| Methane | 1 4 | .... | .... | 4 3 |
| Ethane | 7 4 | .... | 0 2 | 82 7 |
| Propane | 87 4 | .... | 99 4 | 13 0 |
| Iso-butane | 2 1 | 58 2 | 0 4 | .... |
| Normal butane | 1 7 | 41 2 | .... | .... |
| Pentanes | Trace | 0 6 | .... | .... |

Operation of the gasoline-recovery system is so regulated that the greater quantity of the iso-butane present, which is not suitable for gasoline blending, is taken overhead. This accounts for the ratio of iso- to normal butane shown in the analysis above. Of course, the quantity of normal butane recovered as gasoline is varied to meet seasonal demand.

During the recent test, referred to above, the results obtained are shown in Table 2.

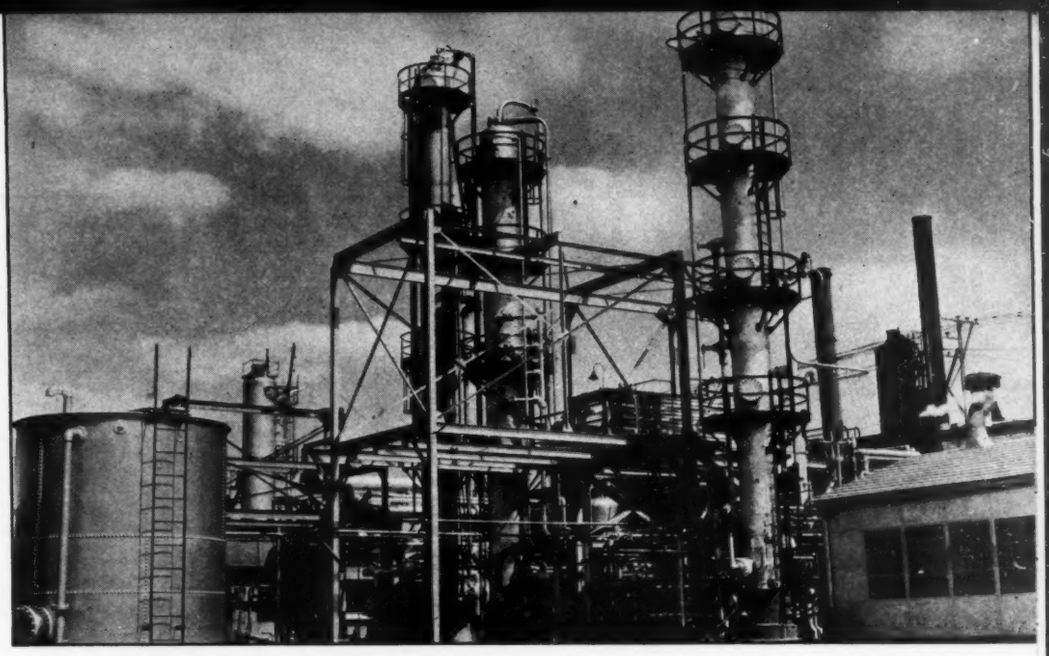
**TABLE 2—OPERATING DATA**

| | |
|---|---|
| Capacity: | |
| Commercial propane, gals./day | 25,680 |
| Commercial butane, gals./day | 1,215 |
| Total | 26,895 |
| Yields: | |
| Commercial propane, per cent of propane and propylene charged | 99 2 |
| Commercial butane, per cent of butanes charged | 91 0 |




*Flow sheet of Tide Water Associated Oil Co.'s new butane and propane recovery unit including descriptions of important equipment*

# Butane-Finished



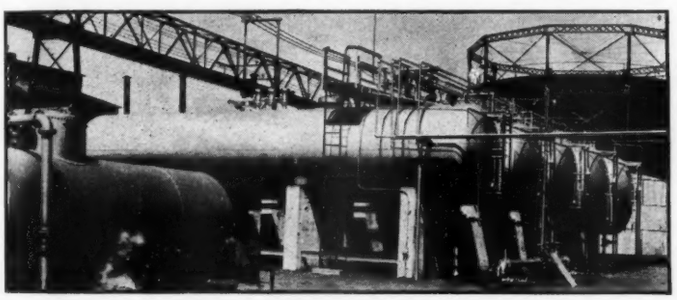
*General view of Tide Water Associated Oil Co.'s new butane and propane recovery unit at the company's Bayonne, N. J., refinery. Unusually close fractionation is provided*

Product quality:

| | |
|---|---|
| Propane— | |
| Purity, per cent | 99.4 |
| Vapor pressure at 105° F., pounds | 216 |
| Evap. test, per cent | 0 |
| Dryness | (*) |
| Butane— | |
| Purity, per cent | 99.4 |
| Vapor pressure at 105° F., pounds | 62 |
| Weathering test | (†) |
| Evap. test, per cent | 100 |
| Dryness | (‡) |

Utilities:

| | |
|---|---|
| Steam, pounds per hour— | |
| Preheater | 937 |
| Butane reboiler | 2,185 |
| Propane | 520 |
| Total | 3,642 |



*Battery of storage tanks in butane and propane service*

| | |
|---|---|
| Cooling water, gals./minute— | |
| Propane cooler | 7.9 |
| Butane cooler | 2.4 |
| Propane reflux cond. | 102.0 |
| Butane reflux cond. | 202.0 |
| Total | 314.3 |

| | |
|---|---|
| Heat exchange rates, B.t.u./hr./sq. ft./°F.: | |
| Charge preheater | 70.0 |
| Butane cooler | 3.4 |
| Propane cooler | 20.0 |
| Butane reflux condenser | 80.0 |
| Propane reflux condenser | 18.6 |
| Butane reboiler | 154.0 |
| Propane reboiler | 123.0 |
| Heat exchanger | 34.1 |

*O.K. by cobalt-bromide test. †No residue. ‡No entrained moisture.

Due to operating conditions obtained on crude fractionating equipment at the time of this test, there was an inadequate supply of gas to the gas plant and the charge to the butane-propane plant was far below specification capacity. It was necessary, therefore, to recycle propane from one of the storage tanks to the gasoline tower reflux accumulator to simulate normal operating conditions for test purposes. Propane recovery of 99.2 per cent, as noted above, was very satisfactory. It is evident, however, that in order to obtain a product of the purity obtained, too high a reflux ratio was used. This is reflected directly in the high utility rates shown. Undoubtedly reduction of the reflux ratio and production of a product nearer standard commercial requirements would reduce the reboiler steam and condenser water requirements materially (both being in excess of estimates during this period).

Due to a lack of available butane for charging, for the reasons outlined above, the butane capacity, yield and water cooler performance were poorer than expected. The low recovery is believed to be due entirely to the low butane throughout. If the butane production had been 5,000 gallons per day and the butane in the propane remained at .4 per cent (as is reasonable to expect) the commercial butane recovery would have been 97.8 per cent. The low transfer rate of 3.4 on the butane cooler was due to the low water and butane velocities. This cooler has been found adequate at higher capacities (butane production as high as 8,000 gallons per day having been obtained previously) and it is estimated that at the rated capacity of 5,000 gallons per day the transfer rate would have been approximately 10.

The ultimate capacity of this plant with additional heat exchangers cannot, of course, be tested at present. However, it is noteworthy that the high reflux ratio used on the propane tower gave a tower load approximating that normally to be encountered at a propane capacity of 50,000 gallons per day. For the present, it is proposed to operate for a maximum of 25,000 gallons per day commercial propane and 5,000 gallons per day commercial butane.

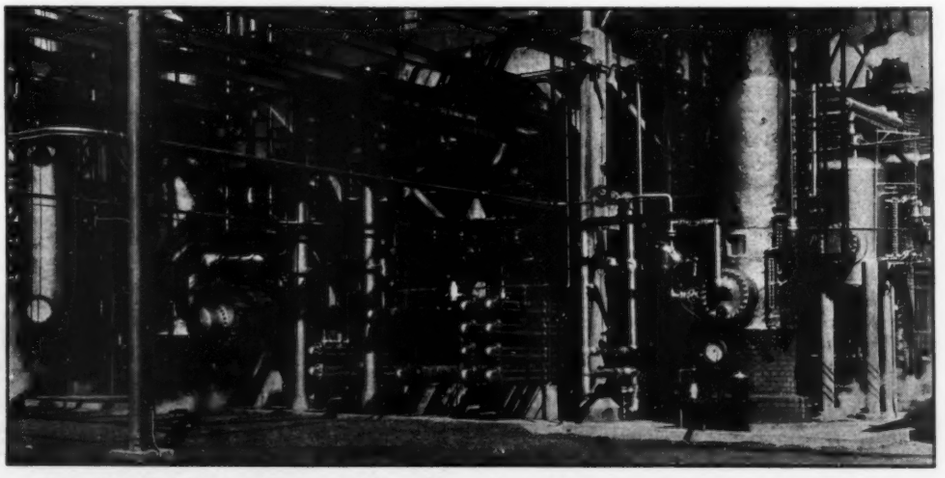
Table 3 shows temperatures and pressures obtained during the test run mentioned above.

A loading rack, designed especially for handling liquefied butane and propane (either separate or mixed) was built on a spur track adjacent to the storage tanks. Tide Water, at present, ships these products only in tankcars. The installation was constructed by Arthur G. McKee Co., Cleveland, Ohio, in accordance with plans developed by McKee and Tide Water engineers.

**TABLE 3—OPERATING TEMPERATURES AND PRESSURES**

| | Gas plant | Butane plant | Propane tower |
|---|---|---|---|
| Oil temperatures: | | | |
| Reboiler vapor | 273° F. | 228° F. | ... |
| Reboiler liquid | ... | 227° F. | 170° F. |
| Tower top | 107 | 123 | 77 |
| Reflux accumulator | 55 | 64 | 48 |
| Charge preheater out | ... | 135 | 116 |
| Final cooler out | ... | 47 | 51 |
| Water temperatures: | | | |
| Water in | ... | 44 | 44 |
| Water out final cooler | ... | 66 | 96 |
| Water out condenser | ... | 83 | 55 |
| Pressures, lbs./sq. in.: | | | |
| Reboiler | 240 | 290 | 450 |
| Reflux accumulator | 237 | 245 | 440 |
| Reflux pump discharge | 267 | 310 | 470 |
| Charge pump discharge | | 296 | 460 |
| Main steam | 140 | 140 | 140 |
| Reboiler steam | 30 | 10 | 0 |
| Preheater steam | ... | 5 | ... |
| Water | 12 | ... | ... |
| Rates: | | | |
| Steam, lbs. per hour— | | | |
| Reboiler | 1,210 | 2,185 | 521 |
| Preheater | ... | 937 | ... |
| Water, gals. per min.: | | | |
| Final cooler | ... | 1 | *7 |
| Reflux condenser | ... | *202 | *102 |

*Calculated.



*Exchanger banks as part of the recovery plant. Note compactness of installation*

*Field scene at Talco, where there are 331 oil producers and 32 drilling wells. This field is the scene of several interesting reconditioning jobs*

# Plug-Back and Reconditioning Work in the Talco District

**By MITCHELL TUCKER**

The Talco field is now the scene of several very interesting plug-back and well-conditioning jobs. It is not uncommon to recondition or place a squeeze job upon a gas or water sand, but specialty cement work at Talco is unique in that it cuts off objectionable oil bearing sands.

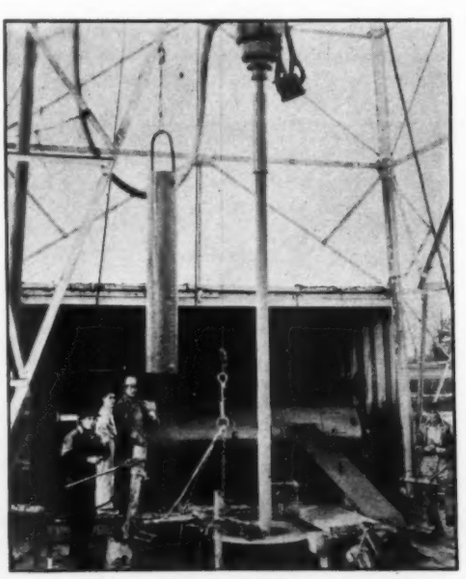
It is now well established that the oil sands of the Paluxy at Talco occur in two separate and distinct sections. The upper sand, or sands, occur just below about 20 feet of Goodlin lime at a depth of approximately 4,100 feet in the townsite, and varies widely throughout the field. These sands are somewhat like the Woodbine, namely, coarse, clean and about 26 per cent porous. A 24-degree gravity oil is produced from this section, and very little trouble is experienced in its lifting, treating or transportation. On the average, the total thickness of the upper sands is about 60 feet, and they constitute the great bulk of Talco's reserves. Very little gas is associated with the oil. Extraneous water is rare, although the connate water in material from 20 to 26 per cent porous is estimated to be from 11 to 14 per cent.

### Lower Horizon

Between this upper level and the lower saturated portion of the Paluxy, about 75 feet of hard shale occurs. The lower producing horizon is about 22 per cent porous, and carries a very low (about 14 degrees) gravity, asphaltic base oil, together with large quantities of encroaching water, a great part of which is in an emulsified form in the oil when recovered. Thickness of this section is not known, as it has never been fully penetrated. Practically all estimates of Talco reserves have ignored the production from the lower sands, due to its uncertainty and the expenses incurred when producing it, or it has been lumped into a round sum and added to reserves from the upper level, because of the indefiniteness of its economical productivity.

The present reconditioning plug-back work in the field is for the purpose of cutting off this bottom oil sand, as in many cases it has not afforded commercial or profitable production. At least, it is not attractive until production from the upper level declines to the point where it cannot make its allowable. Loose sand from the lower zones is very detrimental to subsurface pumping equipment, due to its abrasive action, and its sulfur content is harmful due to its corrosive effect. The 14-gravity oil is very difficult to handle after recovery due to the treating problem presented in its stubborn emulsified form. Also, it adds to the problem of handling the more desirable production from the upper sands, as the two crudes could not be easily separated. The large quantities of encroaching water, from 20 to 80 per cent, also makes the lower horizons unattractive. Therefore, in as much as the majority of wells improperly completed in both sections are capable of making their allowables from the upper level only, many such holes are being reconditioned to cut off the undesirable lower oil bearing sand, at least for the time being.

Present wells being drilled at Talco are profiting from the experience gained in handling this lower oil, and are being completed in an entirely different manner. It is now the practice to selectively complete Talco wells by drilling to the desired level, electrically surveying the hole, setting the oil string on bottom, and perforating opposite the upper and more attractive zones, at points which were indicated to be free of water. The present campaign is to recondition the holes so, in effect, they will be in the same shape as the later completions made by the selective method.



*Rotary drilling in the Talco pool*

There are two types of improperly completed Talco wells; first those which have casing set on top of the sand, and have been drilled through both oil producing levels, and second those which have casing set on bottom and have perforations in both the upper and lower sand levels.

To correct for the first condition, short strings are being set by the recently developed and highly efficient method, and then perforating at the desired level or levels. To recondition the second group of improperly completed wells, a cement retainer is being run and set between the two points of perforation, and a cement plug placed under high-pressure back into the oil and water sand and in the pipe below the retainer. The most advanced types of highly pumpable, retarded action, oil field cements are used in both types of work.

### Short Strings

The setting of short strings is not looked upon with favor by some operators, at least until a representative deep test has been made near the structural peak which will prove or disprove possible deeper production from the Lower Glen Rose or Travis Peak beds.

Considerable progress has been made during recent years in the manner of setting short strings; in fact, the evolution has been from a rather undesirable practice to the present highly efficient method. Originally it was the practice to run and hang the smaller casing in the larger by means of a packer of one type or another. The pipe was then cemented through tubing run near bottom, forcing cement up between the casing and outer hole wall, hoping that some of it would reach into

Photograph by Robert Yarnall Richie

# EASE OF ASSEMBLY *of* MISSION PISTONS

★ ★ ★ THE RESULT OF MISSION PRECISION MANUFACTURING not only speeds up assembling operations in the Mission plant, but . . . . . .

ASSURES YOU TIME-SAVING INTER-CHANGEABILITY ON THE LEASE

No. 16 of a Series on Mission Shop Practices

MISSION MANUFACTURING CO.

HUMBLE ROAD » » » » » » HOUSTON, TEXAS

Mission Slips . Mission Valves . Mission Pistons . Mission Piston Rods . Mission Swabs

***Sold Through Supply Stores Everywhere***

the larger casing. Before the cement would set, it might approach a common level inside and outside the pipe, and result in a poor cement job between the two casings.

Later the practice of running an entire string of smaller size casing, with a back-off or left-hand thread nipple at the desired point, proved much more successful and afforded much greater assurance that a cement seal would be made between the two casings. This manner of setting short strings, however, has been expensive in some instances when for one reason or another the upper section of pipe could not be recovered.

*Preparing to make an electrical survey of the hole before selectively completing in the upper Paluxy sand in the Talco field of northeastern Texas*

The present method being employed to accomplish this purpose at Talco now makes use of a positive action, back-pressure valve on bottom of the short string, and a liner-setting tool with packer on top. The short string, so equipped, is run to bottom and set. About 100 feet of overlap is allowed between the two strings. Cement is introduced down the tubing (packed off at upper liner-setting tool), forced out through the bottom positive action back-pressure valve and up the annular space between the hole wall and pipe. Volumetric calculations provide a rather reliable guide to the number of sacks necessary to assure a cement job between the long and short strings. The back-pressure valve prohibits the cement settling and seeking a common level before hardening action takes place. The use of cements pumpable at high pressures, with retarded action, assists in successful jobs of this type, and is universally used in such work in Talco. When tubing is pulled, the liner-setting tool is engaged by striking it, and the canvas or canvas-lead packer is firmly set. Thus, a short string of casing is successfully set and cemented, and perforations can be made at the desired points, the same as in the original form of selective well completioning.

### Cementing Off Perforations

The plug-back work on wells which are cased to bottom and perforated in both sand sections must be done under considerable pressure in order to afford a good cement column opposite the lower horizon, as of course it is impossible to obtain a cement set in the oil-bearing sand itself. Guided by a well log which indicates points of perforation, a cement retainer is run on bottom of tubing in the hole loaded with water. After reaching desired depth, circulation is established, and then both upper and lower slips in the retainer body are set. By taking a very slight pull on the tubing, the by-pass through retainer jars is closed, and the hole is ready for formational breakdown by the introduction of water at high pressures. The rather recently developed time-pressure recording charts used by some Halliburton cementing trucks now are helpful in observing at all times the reaction of the formation to an increasing pressure.

Generally, the Lower Paluxy sand requires from 2,800 to 3,200 pounds before it will take any noticeable quantity of water. On certain jobs it has been known to never break under pressure. This sand body is somewhat different from most other sands in that after the formation has begun to take water, the pressure never breaks down below 1,750 to 1,800 pounds, and the cement must be placed back through the perforations considerably above this pressure. From 40 to 60 sacks of retarded action cement is employed for this type of job, starting with a 14-pound slurry and increasing to a 16-pound cement with the last few sacks. Volumetrically the amount of cement used should fill the entire hole below the retainer, and force possibly 5 to 10 sacks back into the formation through perforations.

After the cement has been properly placed, the retainer jars are backed off the body, and if desired the excess cement remaining in the tubing is placed on top of the retainer body, some of which is later drilled out if necessary. The tubing is then washed out and pulled, leaving the retainer body in the hole permanently to hold the peak pressure established in the squeeze job. After the upper sand has depleted to a point where it is desirable to again produce from the Lower Paluxy, the cement and retainer body can be drilled out, casing reperforated, and the hole will be in its original condition.

## Drilling Practice Course

Approval of a course on drilling practices was given by the topical committee on vocational training of the American Petroleum Institute at a meeting in Dallas, Tex. The course, made available for oil field workers through vocational classes and schools throughout the state, was compiled by the division of production of the A.P.I., with Carl A. Young of Dallas as secretary.

Walter H. Meier, Atlantic Producing Co., is chairman and Jack Breeland, of Lone Star Gas Co., is secretary.

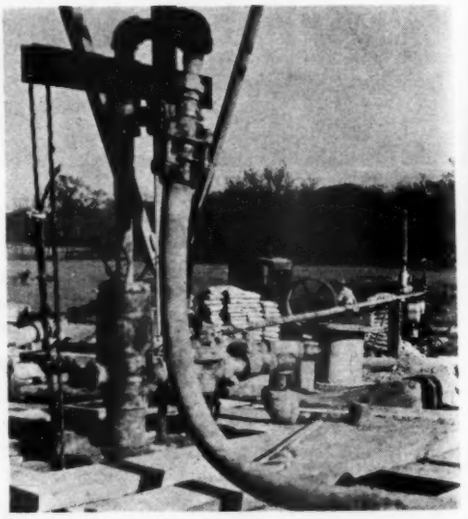
## Achema Annual

The Achema Annual for 1937 is announced. This illustrated book will review the many products for scientific and industrial purposes of the German Chemical Apparatus and Plant Building Industry to be shown at the Achema VIII Chemical Engineering Exhibition July 2 to 11 at Frankfurt on the Main on the occasion of the national convention of German chemists.

## Helmerich & Payne Perforate Casing in Graham No. 1

Running tubing in Helmerich & Payne, Inc., No. 1 Graham during the past week marks the latest step taken in making a producing well out of this wildcat, 20 miles from Marlow, Okla., which has been attracting attention in southern Oklahoma ever since it was killed after a blowout with cratering in April. It is owned jointly by Helmerich & Payne, Inc., and the Wren & Leard Oil Co. and is located near Doyle in section 12, Township 1n, Range 5w.

Blowouts occurred after the well had been drilled to 5,014 feet. The well was brought under control when adequate equipment was procured. A 16"x6" Wilson-Snyder pump driven by a 125-hp. engine was moved in; 2½-inch tubing was run through a Hinderliter head and a mud containing Aquagel, Baroid and Fibrotex was pumped into the well. The well was finally killed April 15. In the latter part of May, casing was run and cemented at 4,300 feet. On June 15 the casing was gun perforated with Lane-Wells equipment up to 3,900 feet, at which point it was found necessary to plug off water. Shooting was resumed between 3,785 and 3,803 feet; at this depth there was 40 feet of sand, 18 feet of which was shot with 95 holes in the pipe. The well was shut in until June 23 when it was opened up and flowed 65 bbls. of oil and a million feet of gas in three hours. The well was shut in under 200 pounds pressure; two days later tubing was run since there was not sufficient gas to flow the oil production through the casing. In a test made just before tubing was run, 390 bbls. of 50 gravity oil were produced through the casing in 17 hours. The Oklahoma Pipe Line Co. is laying a gathering line to the lease.



*Pumping mud and fibred cement into well*

## Waverly Hand Book

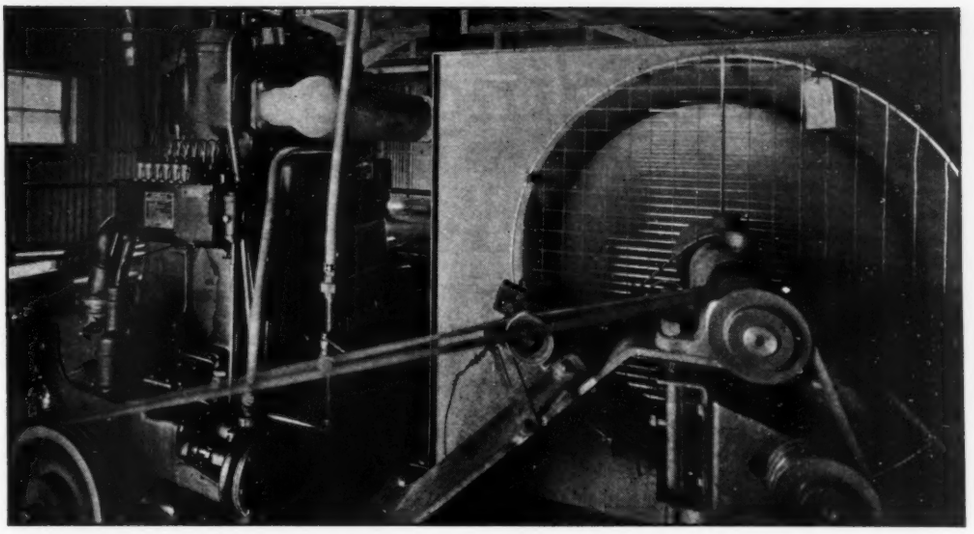
The ninth edition of the Waverly Hand Book containing 900 pages of engineering data of importance to refiners and compounders of lubricants particularly, was recently made available. This hand book has been compiled to include the Waverly Oil Works Co. formulas for compounding many lubricants and specialties and although it follows the same general outline as the eight previous editions of the hand book, it treats of refining processing with much greater detail. The hand books are published for limited distribution by the Waverly Oil Works Co., of Pittsburgh, Pa.

# OPERATING IDEAS

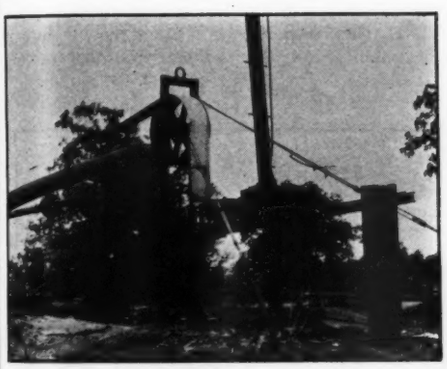
## Improvised Counterbalance

In the Talco pool, where pumping loads are so heavy that multiple-pumping devices are not practical unless some counterbalance is added to the system at the jack wells, one operator is using the practice illustrated here to balance the pumping stroke of the jacks. Old drums are filled with cement and placed on discarded pipe extended from the jack and spaced far enough apart to allow the drums to rest firmly between the two pipes.

## Reclaimed Car Generator Lights Pumping Power



The lighting of a pumping power was solved very cheaply by one company operating in the Olympic field of Oklahoma by the adaptation of an ordinary car generator. As shown in the accompanying photograph, the generator is installed on the radiator bearing support and is driven by belts driving the cooling-water pumps. A 17-plate battery is charged by the generator, current from the battery being used to light adequately the power and the tank battery.



## Water Well Pump

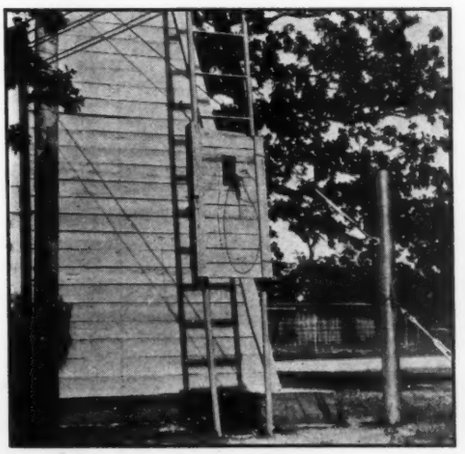
One means of transmitting power via rod-line from the back-side crank on a standard rig is shown in the accompanying photograph. The rod-line terminates in a connection to a piece of canvas belting running over a pully carried in a welded pipe frame. The polished rod is attached to the opposite end of the belt and forced down by the weighted beam also attached to the upper end of the polished rod. The rod-line pulls the sucker rods up and the weight of the rods plus the weight of the metal on the beam push them down and in this particular installation the power is transmitted to the pump.

## Geared Pumping Unit Also Serves as Pipe Line Pump

An oil company operating in the Haven field of Kansas has a well situated about 1½ miles from its gathering station. The oil is pumped from the well into a tank battery, gauged and then turned into an earthen pit. From there it is picked up by the improvised plunger-type pump shown here and pumped to the gathering station. The pump is operated by a stiff rod-line, driving off an A-frame and welded to the walking beam of the pumping unit. The rod-line is divided into two sections with a pendulum located at the center, thus effecting a straight pull on both the geared unit and the pump to effect a continuous power supply.

## Safety Gate on Ladder

To prevent children and others from climbing the steel ladder leading to a water-tower platform a wooden box was built across the lad-



der near its base and firmly attached to the legs of the ladder. The cover of this box is hinged and furnished with hasp and lock. While the lower rungs of the ladder have been removed this is not necessary if the cover of the box is kept shut and locked.

# Results of Logging Two Wells According to Drilling Speeds

By G. C. MADDOX
Carter Oil Co.

An analysis of the actual time taken in drilling certain formations may be valuable to both the operating company and the drilling contractor. By means of this, possible producing horizons penetrated in the drilling of a well may be more accurately logged. And the contractor is likely to find that with this data he can plan ahead better in regard to bits and the points at which to make trips.

To test this hypothesis, a detailed study was made during the drilling of two wells in the Moore pool in the last part of 1936 and the beginning of this year. The wells were drilled to the Wilcox, but since experience has shown that producing horizons were likely to occur in "soft spots" in the horizons just above, there was an incentive to discover whether these might be more accurately logged with the aid of an analysis of drilling time data specially noted for this purpose. The procedure in the area at present is to look forward to the time when soft spots might be acidized.

The original purpose in doing this work was to locate accurately the depths of the shows of oil. The idea was that oil pay zones in the upper Simpson dolomites and limestones usually drill relatively soft and fast, and that a zone which drilled soft and fast rated higher as a prospect for production than one which drilled slower, provided the amount and quality of oil-staining in the cuttings were similar.

It was also expected that in offset wells the same formations would be drilled at somewhat similar speeds, but it was not expected that the comparisons of drilling speeds between the two wells would show so many definite correlation points, as shown in the illustrations.

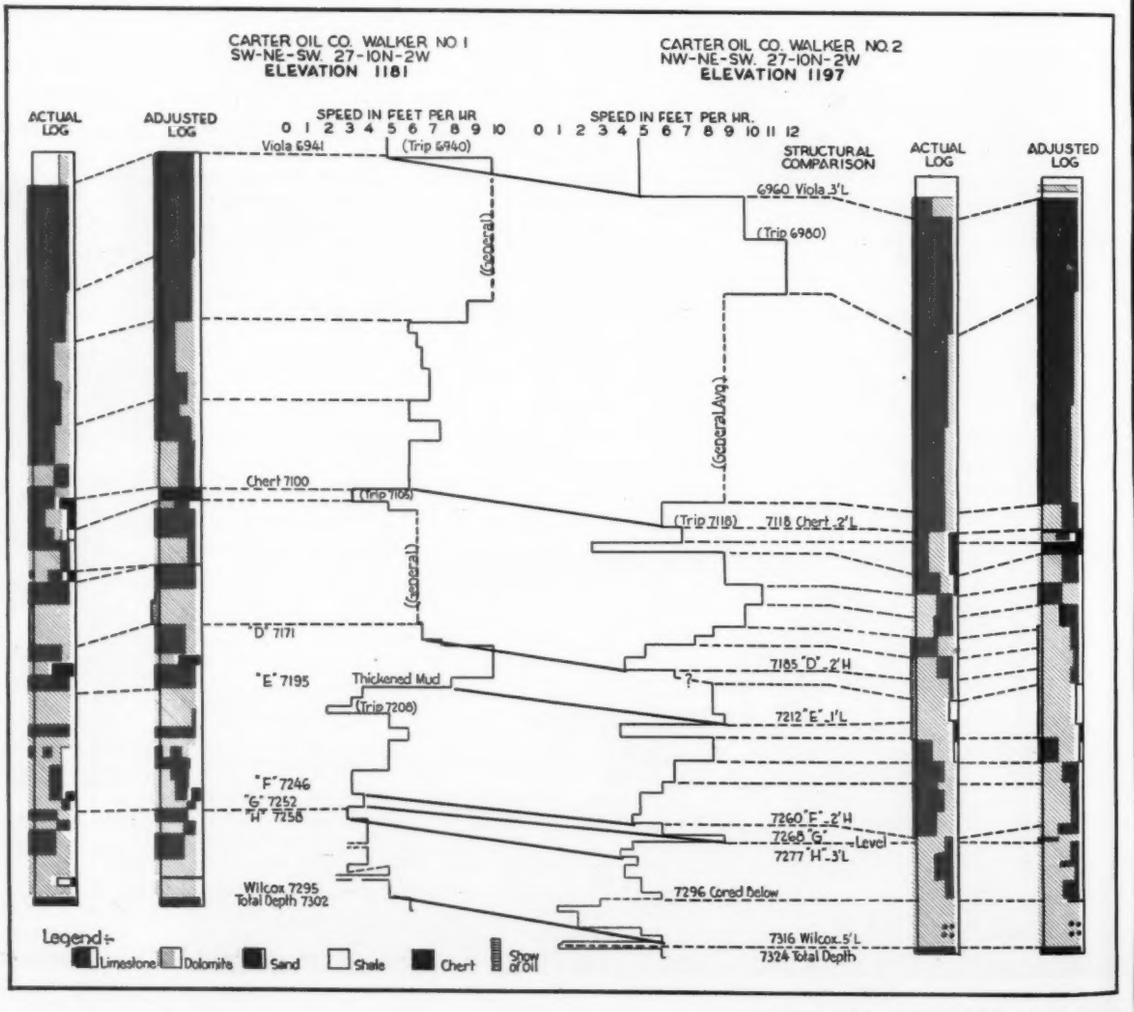
The work was done on the Carter Oil Co.'s Nos. 1 and 2 Walker wells in the southwest quarter of section 27-10n-2w, Moore pool, in Cleveland County, Oklahoma. Only the lower 400 feet, including the Viola, upper Simpson and Wilcox, were included. The contractor, Olsen Drilling Co., used practically the same crews, tool, and procedure on both wells. Loy Harris, geologist, heped collect, plot and interpret data.

The method of obtaining the data was very simple. On the first well the data were kept in a loose-leaf notebook, but on the second well it was found more convenient to nail a thin pack of sample envelopes close to the driller where it was easy for him to write down the drilling changes and the drilling time. For simplicity it was at first suggested that the driller keep the record in terms of feet per hour, writing down the exact depths of the drilling changes, but guessing as to the speed of drilling; for example, 6,928-60, 5 feet per hour, or 6,960-80, 10 feet per hour. Usually a driller's estimate on drilling speed is sufficiently accurate for the required relative comparisons.

However, it developed that the drillers preferred using a watch to guessing, and kept the exact time taken to drill a certain number of feet; for example, 7,139-45, 40 minutes, or 7,240-45, 50 minutes. But it also developed that they fell into the routine of 5-foot intervals, which was less satisfactory because the exact depths of the drilling changes were not recorded.

The conclusion is that either (1) the exact drilling time and depths should be kept from one drilling change to another, or (2) the estimated drilling speed in feet per hour should be kept from each drilling change to the other, with the exact depths. The latter is preferred because it is, or should be with a little practice, easier for the driller, and it is more convenient to use in plotting the data.

Such factors as the condition of the hole and the mud, rotary weight and speed, pump pressure and speed, etc., usually considered in this type of work, were not figured in these calculations. Certainly the correct use of all these data would add to the accuracy and improve the interpretations. It is likely that further work of this type will show the desirability, and perhaps the necessity, of using



these factors. However, the results obtained from the work on these two wells show that only the drilling speed and changes were necessary in this particular instance. It is likely that the very similar conditions under which the wells were drilled made this possible.

### Use of the Data

The drilling speeds per hour and the depths were plotted on ordinary graph paper, with the depths vertically to the scale of 40 feet to the inch, and the speeds horizontally to the scale of 4 feet per hour to the inch. The plotting is simple and rapid. To the right of this the actual sample log was plotted, and correlated with the drilling changes. Then, the *adjusted* sample log was plotted, changing the depths of the formation tops and thicknesses, as shown in the samples, to the actual tops and thicknesses as interpreted from the drilling changes. The results may be called an "adjusted sample log," or a "drilling change sample log." The two wells were then compared and correlated, with the results clearly shown in the illustrations. Because of the geological nature of most of this work, it should probably all be done or supervised by a geologist, preferably one trained in sample work, usually the one "sitting on the well." Schlumberger tests at these two wells confirmed results obtained in the time studies discussed in this paper.

### Results

The adjusted sample log especially answers the original purpose in doing this work — evaluating and locating accurately the zones of oil shows in the upper Simpson. The record will be particularly valuable for future effective and economical reconditioning.

It is interesting that some "markers" were found by the drill which previously had not been noted in the samples, and also some which are not revealed at all by the samples. The reverse is also true—that the samples show some markers which do not affect the drill. Of course there are markers easily noted by both the samples and the drill, such as the Viola and the chert. It is therefore obvious that this work is a great aid in quickly establishing a *type section* with correct intervals and thicknesses, particularly valuable in both stratigraphic and structural work in a new pool. This work would probably accomplish the same results on the first two wells in a pool that would be usually accomplished by the "soaking in" method on 30 wells, or when the pool is relatively old.

It is likely that further work along this line will prove to be a considerable aid to drilling contractors who will use the data especially in effecting an economy in the use of cones. Likewise drillers will find the data helpful in planning their work ahead, the choice of cones, when to make or expect to make trips, etc. It would be of particular help to all drillers in new pools and to new drillers in old pools.

### Cost of the Work

The principal cost of the work is the additional time taken by the geologist in collecting, recording, and working up the data, roughly estimated at a maximum of two hours to the hundred feet. The only cost to the driller is the trouble taken in keeping closer watch on his drilling and in writing down the record.

### Future Possibilities

The probability that more of this type of work will be done is good; at least in this general area, and in the pre-Pennsylvanian. It will also likely be extended to include the Pennsylvanian where shows of oil are expected. It is, however, very problematical that it will develop to the extent that it will become regular routine on every drilling well through the entire depth of the hole. The writer is inclined to the opinion that it would pay out as a regular routine, but believes that further work should determine the wisdom of the procedure.

# *Humble Lays Eight Pipe Lines Across Channel in 4 Hours*

**By F. L. SINGLETON**

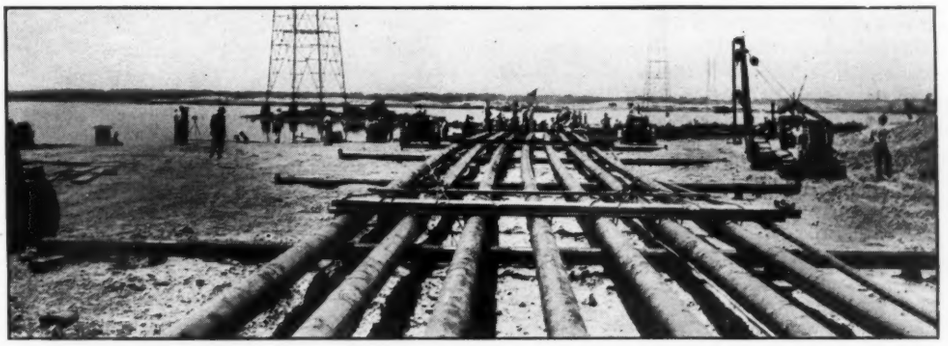
Laying eight sections of pipe lines simultaneously across the Houston Ship Channel near Humble Oil & Refining Co.'s plant at Baytown, was accomplished by the Humble Pipe Line Co. in the record time of three hours and 30 minutes. These lines were made up into eight single 1,820-foot sections, being the actual length of the channel and consisting of six sections of 54.74-pound 10-inch pipe, one section of 43.4-pounds 8-inch pipe and one section of 10-pound 3-inch pipe. The total load including the coating and river clamps was approximately 800,000 pounds.

This project was brought about by the proposed plans to deepen the channel which would require the relaying of two old 8-inch lines that were placed in service between Webster station and Baytown in 1920. While only two of the 10-inch lines will be placed in service at the present time, the other four 10-inch lines were laid as spares to take care of any increase in future production. The 8-inch line will eventually be used as a feeder line to connect the Dickinson field in Galveston County with Humble Oil & Refining Co.'s recently completed gas line from the Tomball field to Port Arthur, while the 3-inch line is a conduit for telephone and telegraph lines.

As the water in the channel is very brackish, extra heavy coatings were applied. This job was done before the pipe was moved to the crossing and included a primer coating; a double coat of asphalt enamel; one coat of asphalt saturated cotton fabric; two coats of asphalt enamel asbestos felt and a final coat of asphalt enamel.

As the pipe was received from the yard it was lined up in single sections on top of 8-inch lengths of pipe which rested on "dollies" mounted on wooden stills and spaced at approximately 15-foot intervals. As a protection against breaking the heavy coating as the pipe rolled on the dollies, 1-inch planks were wired to the bottom of each line. The planks were later removed.

The eight lines were spaced on the dollies about 2 feet apart and were made into one full section by the use of angle-irons clamped to each line by U-bolts at about 70-foot intervals.



*Humble Pipe Line Co. laying section of eight pipe lines simultaneously across Houston Ship Channel, near refinery at Baytown, Tex. Notice planks on bottom of pipe to protect coating*

Permission to lay these lines was approved by the War Department district offices at Galveston which granted a permit for the crossing and a permit to close the channel traffic while the line was being laid. The channel was closed Tuesday morning at 10 o'clock and the company was given five hours in which to complete the crossing.

In order to complete the job within the alloted time, all details of the construction were worked out in advance by the engineering staff of the company and several weeks were spent by workmen in preparing the pipe so that no lost motion would occur at the time the channel became closed.

The pipe was assembled on the Baytown side of the crossing where it was welded into single sections and then tested under 800 pounds of pressure.

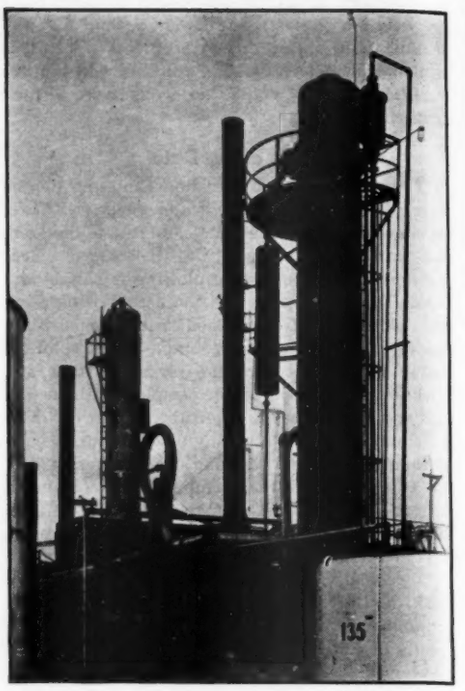
The full sections were pulled to the water by four tractors equipped with winches. Two tractors were lined up on opposite sides near the head-in section and two were lined up on opposite sides near the rear. Steel cables were attached to a wooden cross piece which was wired to each line. At a given signal the tractors began pulling in unison and as the head-in section reached the water, it was picked up and placed on a barge and two small pontoons, and was pushed to the center of the channel by the two rear tractors. At this point, cables from two tractors on the opposite side of the channel were attached and the section was pulled into the desired position. The only trouble encountered was the breaking of one cable and the slipping of one of the water clamps.

River clamps weighing between 600 and 800 pounds were placed only at the sag end of each side of the dredge cut, which was dug by contract to a depth of 47 feet by about 30 feet wide at the bottom and 905 feet long.

The line was laid with the approval of the War Department who had divers to inspect its position.

# Asphalt Made From New Mexico Crude

By DR. SIDNEY BORN*
University of Tulsa




*Vacuum asphalt reducing unit in the Roswell, N. Mex., plant of Valley Refining Co.*

By far the greatest amount of asphalt used for paving purposes today is derived from petroleum and is generally called petroleum asphalt. The earliest use for petroleum residuals was for fluxing or softening the rock asphalts or other solid natural asphalts mentioned above. or other solid natural asphalts.

Early in the nineties an American inventor Jesse Dubbs discovered a process for manufacturing solid petroleum asphalts from liquid petroleum residues by heating these with sulfur. Another process was developed by Byerly about the same time for oxidizing petroleum asphalts with air, in order to produce solid asphalts.

The asphalts produced by these processes had very little ductility and in order to improve these they were often blended with certain natural bitumens such as gilsonite[1].

Methods for the production of asphalt from crude petroleum have been developed rapidly in the last few years. The earliest method used was simple reduction with fire and steam in a batch still, but this method is only applicable to heavy crude oils, such as certain heavy California and Mexican oils which contain large percentages of asphalt. Great care must be exercised to avoid local overheating. Certain heavy crude oils found in Oklahoma and Texas can also be reduced in this manner.

The next step in the development of asphalt production was the introduction of the continuous pipe still method. In this method the crude petroleum is continuously pumped through a pipe still heater and then flashed into a fractionating tower. The lighter ends are distilled off and the heavy residual asphalt drops to the bottom of the tower from which it is continuously removed.

The most important step in production of asphalts was the development of the vacuum pipe-still, in which the lighter ends of the crude oil are first flashed off at atmospheric pressure and the residual oil is then pumped through a secondary heater especially designed for high transfer rates and flashed into a fractionating tower maintained under high vacuum, usually from 25 to 60 mm. mercury absolute.

Recently a vacuum unit was installed at Roswell, New Mexico, for the production of asphalt from New Mexico crude oils. This plant is the first erected in the state of New Mexico for asphalt manufacture. Not all crude oils are suitable for the production of penetration asphalts. Of the various crude oils found in New Mexico the oil obtained from the Getty field makes an excellent charging stock for the manufacture of asphalts. While the production from this pool is comparatively small, it is particularly suitable for the production of asphalts. Various unsuccessful attempts had been made in prior years to process this crude oil, but resulted only in the production of some road oils of the slow curing type.

**ANALYSIS OF GETTY CRUDE**

| | |
|---|---|
| A.P.I. Gr. | 21.6 |
| Sulfur | 1.67% |
| Pour Test | Below 0° F. |
| Viscosity | 390 at 100° F. (S.U.) |

**Yields**

| | Percent | Sp. Gr. | A.P.I. |
|---|---|---|---|
| Gasoline | 6.4 | .767 | 53.0 |
| Kerosene Dist. | 2.8 | .807 | 43.8 |
| Gas Oil | 14.3 | .851 | 34.8 |
| Lubricating Oil Dist. | 29.0 | .910 | 24 0 |
| Residuum | 46.6 | .985 | 12.2 |
| Loss | 0.9 | ... | ... |

The Getty field is located near Carlsbad, New Mexico and produces from several horizons between 1,325 and 1,400 feet deep. The oil is brownish black in color and has the accompanying characteristics:

Before designing the necessary equipment a study of this crude oil was made. The flash vaporization curve (Figure 1) was computed from vacuum distillations made according to method described by Born and Nelson.[1] Figure 1 also gives the gravity mid-percent curve.

The penetration yield curve is shown in Figure 2 and gives the yield of asphalt of different penetration specifications.

The unit consisting of a pipe still heater, vacuum tower, barometric condenser and jets, was designed from the above laboratory data. Particular attention was given to the design of the heater so that the charging stock was raised to the required temperature in the shortest time possible and had a high radiant heat absorption. This design using the proper velocities produces asphaltic stocks of superior qualities. Process steam is superheated in a separate coil in the pipe still heater.

The design of towers for vacuum units is complicated by the large volume of vapor that is produced at low pressures and the necessity for

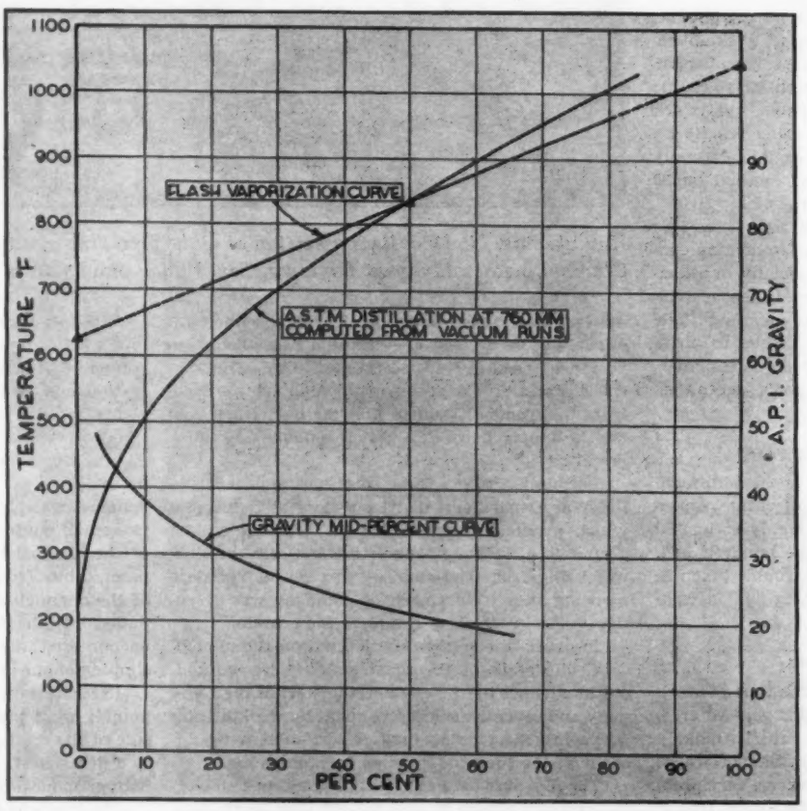



*Fig. 1—Temperature and gravity relationships*

*Presented before second World Petroleum Congress at Paris, France.

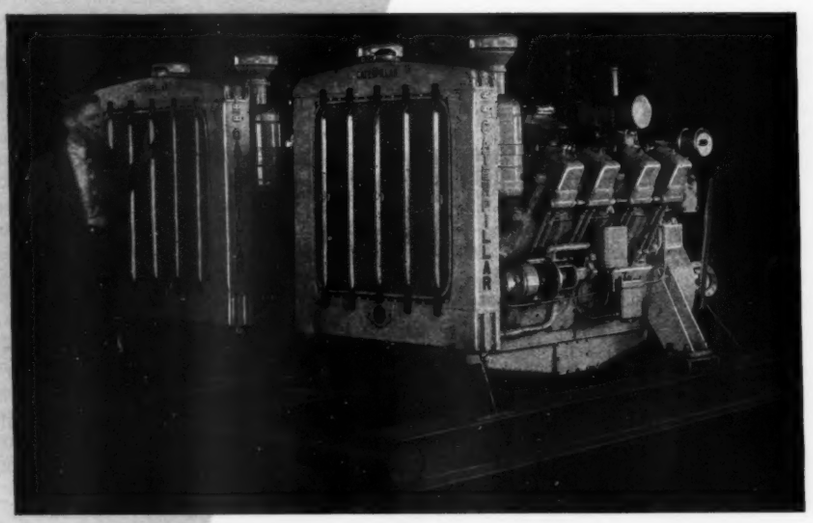
[1]Born and Nelson, National Pet. News, May 9, 1934.

# CATERPILLAR DIESEL ENGINES

Low Cost CATERPILLAR DIESEL Engines, Unitized by Bridgeport with modern oil field equipment, cut power costs by a half to three-fourths with thousands of hours of repairless service on the toughest kinds of work.

We specialize in adapting these powerful and economical Diesel Engines to all types of Rotary and Cable Tool Drilling, supplying the complete power units for any type of drilling rig, or the complete Rotary or Cable Tool rig with power, from the crow's nest to the bottom of the hole.

Used to power the equipment of 83 machinery manufacturers in all types of service, large-volume production makes possible the LOW PRICES of "Caterpillar" Diesel Engines. Let us give you complete details.



Adapting two D-17000, 160-h. p. "Caterpillar" Diesel Engines to the power requirements of a Bridgeport Mechanical Rotary Drilling Rig in the Bridgeport factory at Wichita, Kansas.

*Distributed From Convenient Stocks By*

**BRIDGEPORT**

The BRIDGEPORT MACHINE COMPANY

*Manufacturers and Distributors of*

OIL FIELD EQUIPMENT

Factory and General Offices
WICHITA, KANSAS

HOUSTON - DALLAS - SAN ANTONIO - CORPUS CHRISTI - SHREVEPORT
ODESSA - TULSA - OKLAHOMA CITY - WICHITA - AND BRANCH STORES

keeping pressure drops to a minimum so that a high effective vacuum can be maintained at the point of flash. The tower shown in the accompanying photograph was designed to take off two side cuts as well as a penetration asphalt bottom.

In operating this unit the crude oil is pumped continuously through one section of the pipe still heater, and then flashed to an atmospheric tower in which three cuts are produced, gasoline, kerosene distillate and gas oil. The residuum is picked up by a duplex hot oil pump and pumped through the second coil of the pipe still heater thence through an expansion bend into the vacuum tower.

The topped crude enters the heater at a temperature of approximately 450° F. and leaves at a maximum temperature of 750° F.

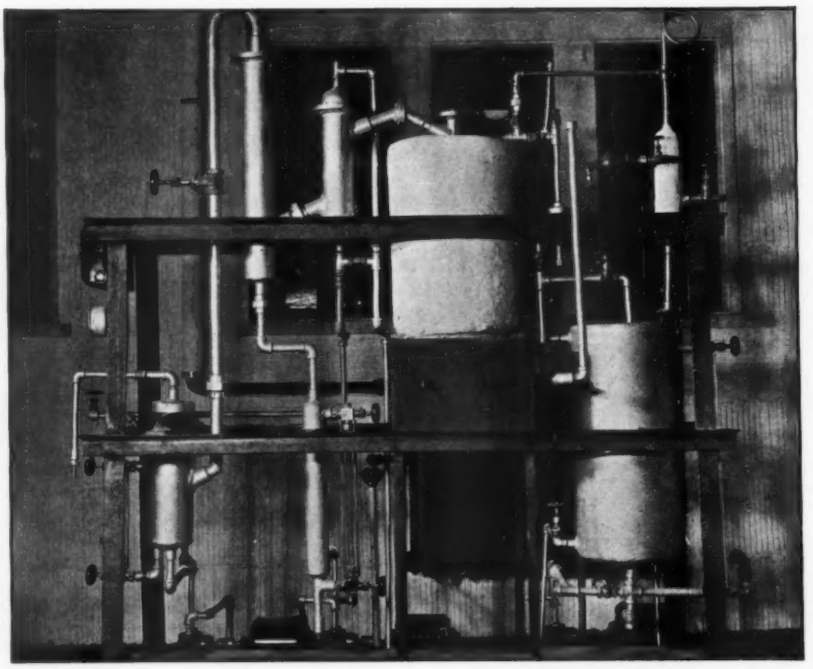
The oil enters the tower below the lowest bubble deck. Superheated steam is introduced at the bottom of the tower through a perforated coil and passes counter-current to the descending asphalt over a series of cone-type baffles. The steam is carefully measured with a recording flow meter.

The vapors pass upward through the shell which contains several baffle decks and five bubble decks of special design. A horizontal condenser is placed at the top of the tower. Vapors enter this condenser at a temperature of 590° F. and leave at a temperature of 150° F. The barometric condenser and steam jets are supported on structural supports welded to the tower.

Two side cuts are taken from this tower. The upper cut runs from 24 to 28 degrees A.P.I. and is taken off directly below tubular condenser. The heavier cut is taken from the lowest bubble deck and has a gravity of 20-22 degrees A.P.I.

Penetration asphalt is continuously removed from the bottom of the tower. The removal of asphalt, gas oil, and distillate is controlled by automatic liquid level controllers.

When operating on ordinary charging stock the unit will yield approximately 30 per cent of 100 penetration asphalt.



*Experimental flash-ignition apparatus used in evaluating asphaltic crudes*

## Standard Paint Specifications

Oil companies and other large consumers of paint have invariably had to test various paints on the ground in order to determine the types to best suit their needs and then these companies established specifications which would provide such a paint but a standardization of paint specifications has never been accomplished so that various companies might find a uniform method for purchasing. H. E. Smith, chairman of the subcommittee for the American Standards Association handling the work of standardizing pigments, varnish and lacquers reported:

"Early in the study of paints by technologists the need appeared for accurate specifications for the pigments, which would enable the purchaser to buy uniform and satisfactory products in the open market from any competent manufacturer. The World War emphasized this need, especially for federal government departments. The railroads, also large consumers of paints and at that time under the jurisdiction of the U. S. Railroad Administration, were included. An Interdepartmental Committee was formed to write specifications for the needed paints and pigments. This committee later grew into the paint section of the Federal Specifications Board.

"For industry in general the work was taken up by the American Society for Testing Materials. A subcommittee was formed to prepare specifications for the pigments and in 1921 it reported several specifications. These were adopted as tentative. They were based largely on those of the Interdepartmental Committee.

"The specifications, which later became A.S.T.M. standards, have been revised from time to time to keep pace with the progress of the industry. Other specifications were in later years added to the list. The results represent the practical experience of both producers and consumers, both of whom are included in the working subcommittee.

"The pigments which were most largely used at the time were, naturally, the first to receive attention. Of those now offered to the American Standards Association, zinc oxide, basic carbonate white lead, red lead, and mineral iron oxide were first adopted as tentative in 1921. Chrome yellow and reduced chrome green were first issued in 1925 and the two blues, ultramarine and prussian, in 1927. All have been revised, as necessary, during the intervening years. The specifications therefore represent extended study and experience.

"The development of A.S.T.M. specifications for pigments has, incidentally, been the occasion for developing the manufacture of fine wire sieves or screens in the United States. Previous to the World War the 325-mesh sieves for testing the fineness of pigments were made by a factory in Alsace-Lorraine which was destroyed during the war. For a time, fine sieves were not available.

"At the request of government and A.S.T.M. technologists, American makers undertook the difficult task of producing wire and cloth of the required fineness and uniformity. That which is used for the specified 325-mesh sieve has wires only 0.0014 inch in diameter and the opening between the wires is only 0.0017 inch. In addition, the openings are required to be uniform within 8 per cent plus or minus. Pigments, all of whose particles are 0.0017 inch in diameter, would not be satisfactorily fine for good paint but in the process of grinding so that the required 97 to 99 per cent will pass the sieve, the large majority of particles are ground much finer, thus the desired result is obtained.

"The white pigments represented by the above and other A.S.T.M. specifications are the base of practically all of the first-quality white and tinted paints. In the deeper colors there is a greater variety. Some are used in comparatively small quantities and have not yet reached the specification stage. The number of specification pigments is, however, constantly increasing. And, really, specifications may be desirable even for articles of small consumption. A small percentage of an incorrect component may do a great harm.

"A large part of the entire production of the older white pigments is to the standard of A.S.T.M. specifications. A purchaser may order from a reputable maker by definite reference to these specifications, or, if such reference is omitted, the manufacturer will accept the specifications as a standard and as satisfactory basis for any discussion which may arise. Red lead, though essentially a metal protective rather than a decorative pigment, is on practically the same basis.

"Of the colored pigments, mineral iron oxide, lampblack, chrome yellow, chrome green, ultramarine blue, and prussian blue, now adopted by the American Standards Association, there are various grades and shades. The specifications are so drawn as to include all shades. With respect to grade or quality, they represent good and reliable commercial products."

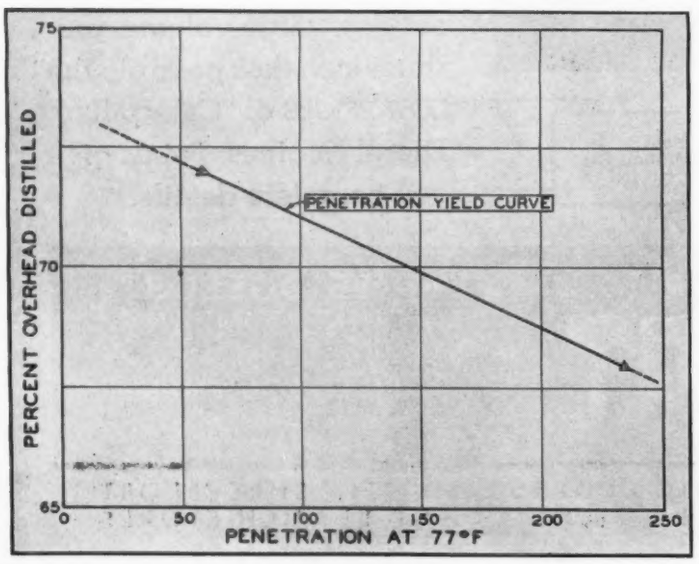



*Fig. 2—Penetration and yield relationship*

# Many Producing Levels Cause Unusual Well-Spacing Plan

By T. P. SANDERS

Because of its many productive zones, the Dominguez field in the Los Angeles Basin of California is being developed with an unusual but efficient system of well spacing. There are eight productive zones ranging in depth from 3,900 feet to 7,600 feet, and it is expected that deeper production will be discovered by a deep test now being drilled. A well-spacing program was established early in the life of the field which calls for a distance of 610 feet between two wells producing from the same zone. With this spacing each well would have a drainage area of about eight and one-half acres, and if each well produced from all of the zones found to be productive at its location only one well on each eight and one-half acre tract would be sufficient to completely develop the field under the established well-spacing plan. However, since no well in the field produces from more than three of the eight productive zones, it has become necessary to drill as many as four wells on many eight and one-half acre tracts for complete development.

### Four Wells on One Location

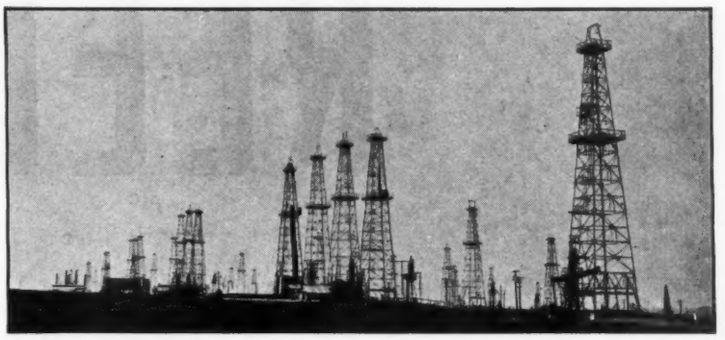
At present there are eight regular locations in the field upon which four wells have been drilled, and many locations are occupied by twin wells or triplet wells. An active drilling campaign is still in progress which will result in many more of these multiple-well locations. If commercial production is developed by the deep test below 10,000 feet, some of the regular locations will be occupied by five wells at some time in the future.

The field presents a singular appearance with its groups of three and four wells marked by tall derricks 30 to 75 feet apart, with the distance between the groups 400 or 500 feet. The wells in each group are usually drilled in line. Close spacing of wells is common in many California fields but in other cases, fields such as Long Beach and Santa Fe Springs have been developed without the use of a regular well-spacing program. The Dominguez field is operated, except for several small wells, by Union Oil Co. and Shell Oil Co. These two companies have cooperated to develop the field in an orderly manner, eliminating the wastes of highly competitive drilling practice. While it is not unit operation, many of the economies of unit operation have been realized.

The field is situated on the Newport-Inglewood zone of structural weakness, a trend which crosses the Los Angles Basin from northwest to southeast and is marked by the oil fields, Beverly Hills, Inglewood, Potrero, Rosecrans, Dominguez, Long Beach, Seal Beach, and Huntington Beach. The Dominguez structure is an elongated dome which is plainly indicated at the surface by a dome-like topographic high. Complicated faulting systems exist within the structure, but movement along the fault planes apparently was relatively small.

The first productive zone of the field was discovered in 1923 by Union Oil Co. Since that date the discovery and development of deeper zones has progressed hand-in-hand with the development of deeper drilling, upon which the discoveries were dependent. Thus, though the structure was known and the possibility of deeper production strongly indicated, 13 years elapsed between the discoveries of the first and eighth zones. During these years the other zones were discovered as improvements in drilling equipment and technique increased the maximum depth of economic exploration and development. In the past three years one additional zone has been discovered each year.

The division of the productive strata of the field into eight zones was somewhat arbitrary, though it is now well established. From the top of the first zone to the bottom of the eighth zone the strata are alternating beds of sand and shale of varying thicknesses. The upper five zones are of Pliocene age while the lower zones are in the Miocene. As a rule the division between two zones is marked by a shale bed about 50 feet or more in thickness. The zones are of different thicknesses, averaging about 400 feet. In the center portion of the field the zones are all free from water, so that if desirable, all of the zones could be produced in one well if a perforated liner were hung from casing set on top of the first zone.



*View in the Dominguez field of the Los Angeles Basin showing the pattern of well spacing. Note the groups of four wells*

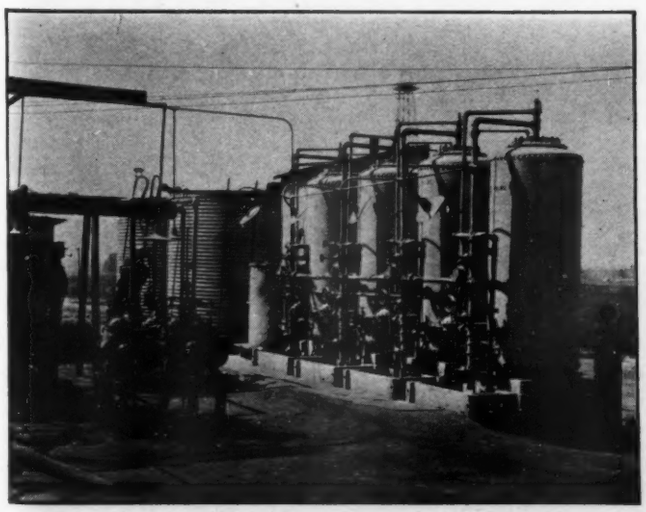
The productive areas of the various zones vary in size and shape. While all of the zones produce clean oil in the center portion of the field, toward the edges some zones may produce clean oil while other zones produce cut oil or only water. The productive areas of the deeper zones remain largely undefined. In drilling a well it is required by the oil and gas division of the California Mining Bureau that a tested shutoff be made above the first productive zone encountered.

### Cement Protector String

In the center portion of the field this means cementing a protector string, usually 11¾-inch slip-joint welded casing, on top of the first zone at a depth of 3,800 to 3,900 feet. Outside of the limits of clean production in the first zone this string is set on top of the third zone at a depth of about 4,700 feet. Outside of the limits of clean production in the third zone the protector string is set on top of the zone to be produced, which would be one of the zones in the Miocene. In all wells in the field a shutoff is required below the fresh surface water. This is provided either by a multiple-stage cementing job or by a string of casing cemented at about 950 feet. When 11¾-inch protector string is to be used, 16-inch slip-joint surface casing is employed. When 8⅝-inch protector is used, as is the case when it is set over the seventh or eighth zone, a 13⅜-inch string of surface casing is used.

At present a controversy exists over the casing program to be used for development of the eighth zone on the flanks of the structure. The California Mining Bureau desires to have shutoffs made on top of both the seventh and eighth zones when the eighth zone is to be produced. This program is not agreeable to the operators as it would call for

*(Continued on Page 46)*



*Zeolite water-softening plant used at central boiler plant*

*On the Jefferson Discovery Well*

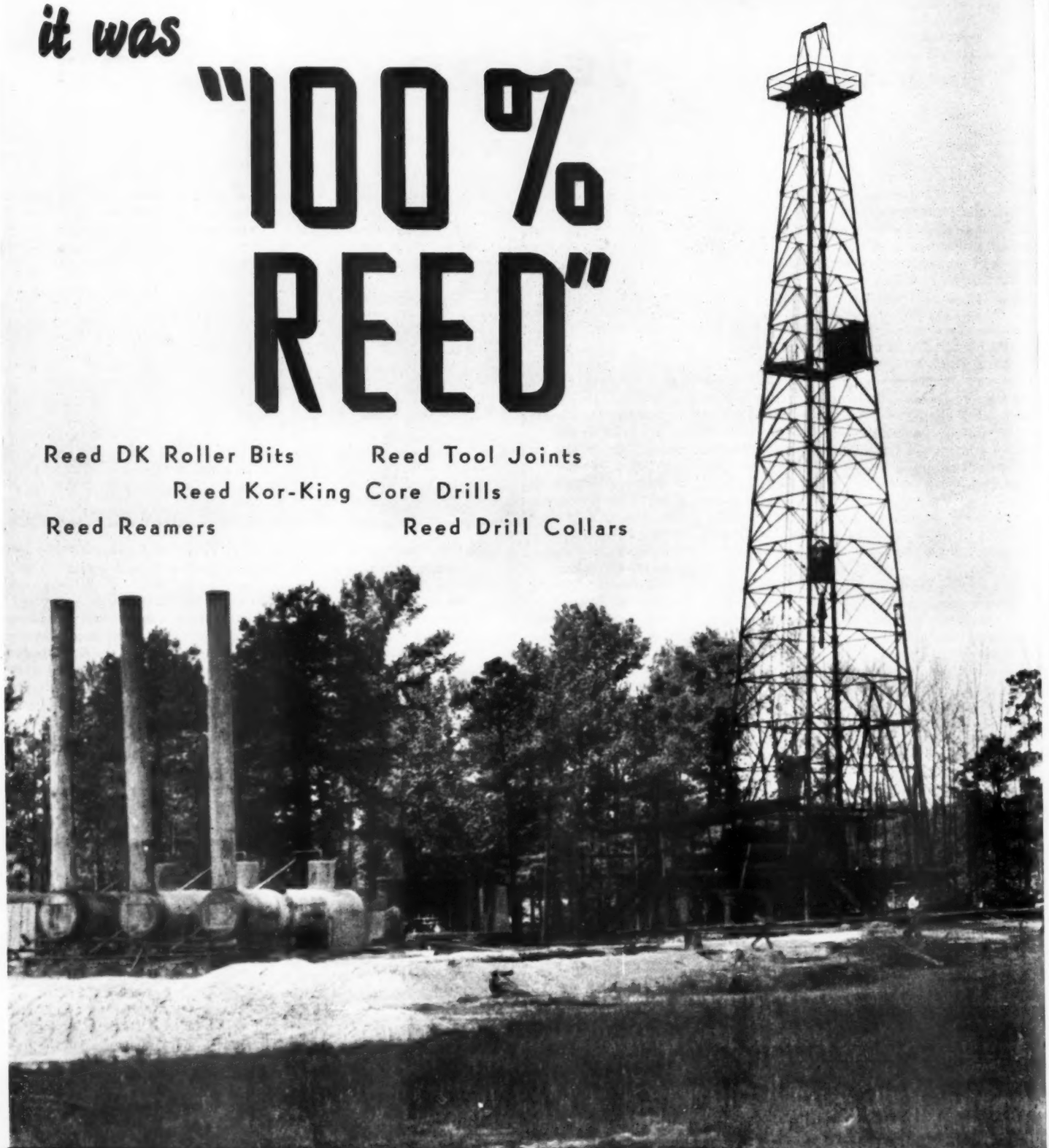
*it was*

# "100% REED"

Reed DK Roller Bits  Reed Tool Joints

Reed Kor-King Core Drills

Reed Reamers  Reed Drill Collars



REED ROLLER BIT CO.

LOS ANGELES  HOUSTON  OKLAHOMA CITY  NEW YORK

*Distributed through Supply Companies Everywhere*

Mid-Continent and Gulf Coast Distributors for MARTIN-DECKER PRODUCTS

the Henderson No. 1, near Jefferson, Texas
REED ROLLER BIT COMPANY
COMPLIMENTS THE
D. THOMASON DRILLING CO.
AND ITS EFFICIENT PERSONNEL
ON DRILLING AND BRINGING IN
THIS IMPORTANT DISCOVERY WELL
OUTSTANDING CORING RECORD
WITH THE
REED KOR-KING
CORE DRILL
CORING STARTED AT 5,840 FEET
AND WAS CONTINUED TO 6,000 FEET;
THEN INTERMITTENTLY TO 6,408 FEET
WHERE THE PAY WAS LOCATED . . .
OF THE FIRST 100 FEET CORED
98 FEET, 8 INCHES
WERE RECOVERED
THE TOTAL AVERAGE
CORE RECOVERY
ON THIS WELL WAS
94%
WITH THE
REED KOR-KING
CORE DRILL
"WHEREVER THERE IS
ROTARY DRILLING"
REED
KOR-KING
CORE DRILLS
REED
DRILL COLLARS
REED
REAMERS
REED DK
ROLLER BITS
REED
TOOL JOINTS

*(Continued from Page 43)*

setting two long strings of casing, one at about 7,000 feet, the other at 7,400 feet. By a field agreement of the operators the seventh and eighth zones are produced separately. This agreement is largely responsible for the number of wells required to develop all of the zones on the 8½-acre tracts in the central portion of the field. Here the first five zones are usually produced by two wells; the sixth zone, being of relatively low productive value, is not produced at all; and one well is required for each of the two deepest zones. In the central portion of the field the shutoffs for the seventh and eighth zones are made at about 6,250 feet and 6,750 feet respectively. However, these depths increase on the flanks of the structure.

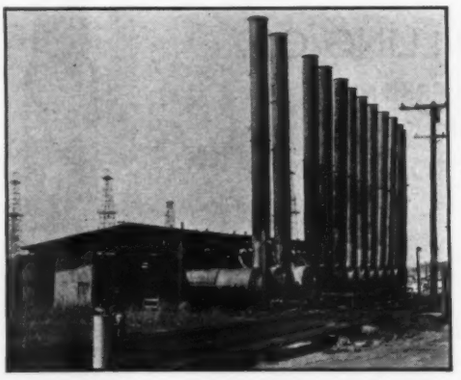
### Types of Liners Used

For completion of wells in any of the zones in the Dominguez field, perforated or slotted liners are used. When these are over 100 feet in length they are hung from the bottom of the casing string. Some liners pass through three productive zones and are 1,000 feet long. Long liners are sometimes installed with blank sections opposite the more prominent shale intervals, and some are slotted or perforated throughout their length. None are cemented. Only in the central portion of the field is it considered safe practice to produce several zones in one well. On the flanks of the structure, where some of the zones are water-bearing, each well produces from only one zone.

Drilling at present is mostly for development of the seventh and eighth zones though some wells are being drilled to shallower zones to complete the well-spacing program. There are now 12 completed wells in the seventh zone and only eight in the eighth zone. While the productive areas of these zones are not defined, they are apparently both very prolific. The seventh zone has a thickness of about 400 feet. The eighth zone, with a thickness of 800 feet, is thought to be the most prolific zone of the field. On the last eighth-zone well completed, 811 feet of perforated liner was used. Seven of the eight wells in this zone flow; the other is on gas lift.

Indications are that the development of the Miocene zones will continue over a period of several years even though no deeper commercial production is discovered. Also, at some future time the sixth zone, which represents the interval between the top of the Miocene and the top of the seventh zone, will be developed. However, it may be that this will not take place until depleted seventh- and eighth-zone wells are plugged back to this horizon.

Since competitive drilling has been reduced to a minimum by agreement between the operating companies, and both companies do their own drilling, few drilling rigs are used in the Dominguez field. These, however, are kept in constant use, being moved to new locations as fast as wells are completed. Derricks are not moved, but are left in place to serve during the lives of the wells. Both companies use central boiler plants where insulated boilers have been in use for several years and have supplied steam for many drilling wells. The end of the service of these plants is not yet in sight. Drilling has all been with steam rigs of conventional design. Since it is planned to use pressure drilling for completion of some, and perhaps all, of the future wells, cellars now being dug on new locations are 16 feet deep.



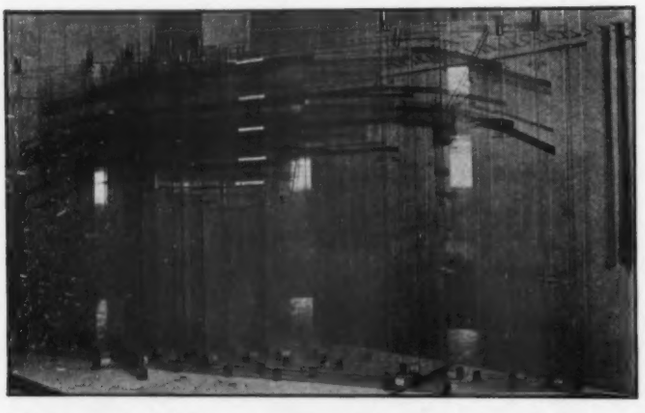
*Boiler plant at Dominguez field. It has furnished steam for all Union Oil Co. wells in one end of the field for eight years. The boilers are insulated and set over pits 4 feet deep, which are lined with fire-brick*

Dominguez wells are produced by natural flow, gas lift, and pumping. Gas lift has been the subject of considerable experimental work in this field, but most gas-lift wells now are operated by continuous flow. The field is served by a network of gas lines from the gasoline plants for the efficient application of gas lift. Four different systems carry pressures ranging from 1,000 pounds down to vacuum. Pumping is accomplished mostly with individual units. Little trouble with sucker-rods or other equipment is encountered. Throughout most of the life of the field attempts have been made to withdraw the oil in a manner which would increase the ultimate recovery. Pressure surveys have been made at regular intervals, and adjustments in productive rates have been arranged to avoid abnormal reduction of pressure in certain areas and zones.

The relationship of deeper discoveries in the Dominguez field to the general development of deep drilling, which has been in effect for 13 years, is likely to continue. Since the 10,000-foot well has become an economic factor in the industry, deeper production is expected this year, and future advancements in drilling practice may also have the effect of extending the known productive depth of the Dominguez field.

There are slightly over 700 acres in the developed area of the Dominguez field, but since many productive zones remain undrilled over much of this area, it must be considered only partially developed acreage. One hundred eighty-seven wells have been completed, but only 22 of these produce from the Miocene zones. This indicates the small extent to which development of the lower zones has progressed. During February the average daily production per well in the Miocene under restricted flow was 539 bbls., as compared with an average of 180 bbls. for wells producing from the third, fourth, and fifth zones, and 114 bbls. for wells producing from the first and second zones. The average daily production from the entire field in March was 24,555 bbls. of which 45 per cent was produced from the Miocene. The production is prorated each month, recently at about 38 per cent of the field potential. The field potential, which for March was 60,207 bbls. per day, is arrived at by an estimated per cent of decline from the original potential for each well.

Few pools in the Los Angeles Basin produce oil of higher than 31 gravity. The Dominguez pool is one of these, and its oil is especially valuable because of its high gasoline yield and its antiknock properties. It averages 32 gravity, priced at $1.27 per barrel.



*Glass model of the upper zones of the Dominguez field made by S. Grinsfelder of Union Oil Co. The cross-sections between the wells are painted on glass, the plates being held by split brass cylinders so that both north-south and east-west sections can be used in the model*

## Standardize Heating Boilers

A simplified list of sizes of steel horizontal firebox heating boilers has been accepted as a Simplified Practice Recommendation R157-37 under the procedure of the Division of Simplified Practice, National Bureau of Standards.

The recommendation provides for 19 sizes of boilers for hand firing, ranging from 1,800 to 25,000 square feet of steam radiation, and from 2,880 to 56,000 square feet of water radiation; also 19 ratings of boilers for mechanical firing, ranging from 2,190 to 42,500 square feet of steam radiation, and from 3,500 to 68,000 square feet of water radiation.

An appendix, consisting essentially of explanatory material as set forth in the Steel Heating Boiler Institute Rating Code, is also included.

"In establishing standard sizes of boilers it is now possible for the manufacturers to make up stock during the slack season with reasonable assurance that this stock can be disposed of during the busy season," says R. A. Locke, manager of the Steel Heating Boiler Institute. "Prior to the establishment of these standard sizes of boilers there was such a large number of sizes of boilers manufactured by various members of the industry that it was impossible for any manufacturer to make up any appreciable stock, as a large percentage of the business was 'custom made.' More work along this line in many other industries will undoubtedly tend to give employment during the slack seasons."

Until the printed book is available, free mimeographed copies may be obtained from the Division of Simplified Practice, National Bureau of Standards, Washington, D. C.

## Ubbelohde on Viscosity

The second edition of Zur Viskosimetrie von Professor L. Ubbelohde is probably the most complete discussion of the subject in print. The various methods are described and the international conversion tables are quite complete, including Engler, Redwood and Saybolt values. These will prove of much assistance to everyone interested in the viscosity standards of the several countries.

## Add to Armour Staff

Dr. Max Jakob was recently added to the staff of the Armour Institute of Technology to take charge of the Heat Transfer Division of the Research Foundation.

# Progress in METALS

By W. L. NELSON

## Welding Stainless Steel

A recent bulletin entitled "The Welding of Enduro" by the Republic Steel Corp. is a concise discussion of the factors that are involved in the welding of stainless steels. The pictures and illustrations are particularly useful.

Steels that contain more than 8 per cent of chromium are more suitable for welding than the low alloy steels. The entire range of stainless steels may be grouped as far as welding is concerned, into two general classes, i.e. the straight steels which contain only chromium, and the chrome-nickel steels.

The straight chrome steels are not used extensively in the petroleum industry except in the cast-form for furnace supports and hence, the fact that the welds are somewhat brittle and are not recommended if the product is subject to movement or shock at room temperature is of little significance.

The second class, or the chrome-nickel steels can be satisfactorily welded by any commercial method used today except forge or fire welding but the method of handling differs somewhat depending upon the percentage of carbon in the alloy. During heating the carbon tends to segregate at the grain boundaries causing a marked decrease in the corrosive resistance of the materials and in extreme cases a tendency toward brittleness at some point near the weld. Thus, if the steel contains more than 0.08 per cent of carbon, the weld should be heated to a temperature exceeding 1,900° F. and cooled rapidly, which results in bringing the brittle carbides back into solution. Air cooling is adequate for thin sections but a water quench is recommended for heavier pieces. If the weld is to be exposed to extreme corrosive attack or is to be used continuously at a temperature exceeding 1,000° F., the steels containing less than 0.08 per cent carbon are recommended. For continuous high temperature service the use of alloys containing small amounts of columbium, titanium or molybdenum are even more satisfactory for welding.

The chrome-nickel steels have a much higher coefficient of expansion than ordinary steel, and a lower thermal conductivity, and hence the design must be given special attention in order to prevent warping, high stresses or failure due to expansion. The 18-8 variety has a coefficient of expansion that is 60 per cent larger than that of common steel.

## Nickel Alloy for Pump-Barrel

Just what combination of chemicals has caused the working barrels of the pumps used in the Goose Creek field, Harris County, Texas, to be destroyed rapidly cannot be stated. Nevertheless, some working barrels of regular steel have lasted for only 60 to 80 days. The working barrel in Beaumont Petroleum No. 29 lasted for only 76 days but a "working barrel" constructed of Inconel, which is a high nickel chromium alloy developed by the International Nickel Co., lasted within four days of a full year of operation. Somewhat the same experience occurred in the Stateland Producers well No. 12. In this well the life of a working barrel was only 64 days whereas Inconel prolonged the life to over 448 days. The brine from these wells is high in chlorides but no hydrogen sulfide is present.

The cost of the nickel chromium alloy is high, being about six times as much as that of regular steel, but the saving in labor as well as the longer life would seem to well repay the additional first cost. For a 1¾-inch, 6 feet long Inconel outer tube for a 2-inch insert pump, the price is about $35 whereas an ordinary tube costs only about $6.50. Data on these two wells are shown in Table 1*.

**TABLE 1**

| Well— | Fluid, bbl. | Oil, bbl. | Depth | Chlorides, pct. | Life of bbl. Others | Life of bbl. Inconel |
|---|---|---|---|---|---|---|
| Beaumont No. 29 .... | 75 | 30 | 3,446 | 3.55 | 76 | 361 |
| Stateland No. 12 .... | 50 | 14 | 2,489 | 2.38 | 64 | †448 |

*Inco.-Vol. XIV No. 4.

†Still in service when this report was made.

Experience with these wells would seem to point the way to more successful and cheaper operation of pumping wells in the area of Goose Creek and where similar corrosive action is a problem. For balls, seats, etc., K. Monel metal is also used. This is an alloy of Monel containing a small amount of aluminum.

## Fatigue Limit and Corrosion

Many moving parts are subjected to a continuous cycle of stress and removal of the stress. Sucker-rods are a good example and a revolving shaft or rod is exposed to the same type of stress reversal. Experience has shown that steel cannot be stressed to its elastic limit or tensile strength under these conditions and hence a special test or physical property which is referred to as the Fatigue Limit has been developed. The fatigue limit may be defined as the maximum stress in pounds per square inch that a material can withstand if the stress is applied for an unlimited number of reversals from a maximum to a minimum stress. Thus the fatigue limit of 0.55 carbon steel, which is a typical composition for crankshafts, is about 35,000 pounds per square inch whereas its tensile strength is about 100,000 pounds per square inch.

*Sample of fatigue crack polished and etched with ammonium hydroxide. Magnification 75*

Failure under fatigue conditions appears to occur by the development of minute cracks in the material at weak areas of the surface. These cracks gradually proceed into the material until the remaining material is too weak to carry the load. Such a crack is shown in Figure 1.

Under corrosive and fatigue conditions combined, such as those encountered in sucker-rod service, the strength is even less. Table 2 shows that nickel wrought iron which has an elastic limit of 51,700 pounds, has a fatigue limit of only 40,100 pounds and if corrosion also occurs, the allowable strength may be as low as 15,000 pounds per square inch.

**TABLE 2—FATIGUE LIMIT OF THREE COMMON SUCKER-ROD MATERIALS***

| Material— | Manganese steel | Wrought iron | Nickel wrought iron |
|---|---|---|---|
| Per cent carbon ..... | 0.36 | 0.03 | 0.04 |
| Per cent manganese ..... | 1.17 | 0.04 | 0.03 |
| Per cent slag ..... | ..... | 4.2 | 2.92 |
| Per cent nickel ..... | ..... | ..... | 3.42 |
| Elongation in 2" ..... | 28.8 | 33.6 | 31.0 |
| Tensile strength ..... | 100,000 | 47,700 | 62,500 |
| Yield point ..... | 71,300 | 42,100 | 51,700 |
| Fatigue limit ..... | 48,900 | 30,400 | 40,100 |
| Corrosion fatigue limit, well brine but no air.... | 19,600 | 19,600 | 25,600 |
| Corrosion fatigue limit, same but also $H_2S$ ..... | 14,600 | 16,400 | 14,900 |

*Wescott and Bowers, The Oil and Gas Journal, page 65, October 26, 1933.

## Toughest and Strongest Form of Steel Used in Sucker-Rods

The most generally useful form of steel with regard to strength and shock resistance is the heat-treated form referred to by metallographists as sorbite. Equipment such as sucker-rods, railroad rails, shafts and axles, and much structural steel is heat-treated in the aforementioned manner.

The carbon in ordinary steel is separated from the iron to a large extent as cementite or iron carbide. However, when such a steel is heated to a high temperature and cooled quickly, the carbon is held in a finely dispersed condition throughout the iron. Upon reheating or tempering such a quenched steel, the carbon again tends to segregate—and the particular dispersion of carbon in steel, which exhibits the best combination of strength and toughness, is known as sorbite.

The heat-treatment of sucker-rods involves particularly severe difficulties because the rods are 30 feet long and unequal cooling tends to take place. Nevertheless the Oilwell Supply Co. has successfully met these difficulties by the use of special carefully controlled heat treating furnaces.

In producing heat-treated rods, the forged and air-cooled rods, are first heated in an automatically controlled furnace to produce a fine and uniform structure of grains or metal particles throughout the entire rod. The rods are then quenched to room temperature which results in a rod that is too brittle and hard. These faults are corrected by reheating or tempering the rods in another furnace to modify and control the hardening accomplished in the quenching question. Upon removal from the tempering furnace, the rods are held in tension by a frame while they are cooling so that they will remain straight. This last step is also useful as a means of detecting the weak and faulty rods which tend to stretch or break during the cooling operation.

# PROBLEMS FROM READERS

Edited by L. G. E. Bignell

## Hooking Flow Line Into Lease Tank

**We have had a discussion about the best method of connecting the pipe line from a well into a flow tank. One party maintains the line should be connected near the bottom of the tank and the other party contending the line should run up the side of the tank and discharge into the top. Which is the better method for connecting up the flow tank, say, a 250-bbl. steel tank of the regular lease type?—R. W. N.**

This is an interesting problem and has involved much discussion. There are two phases to be considered and these will be treated separately.

The oil in the field you have in mind is 38° A.P.I. gravity. This oil has a specific gravity of .8348. The pressure exerted by a column of water 1 foot high is .43 pound approximately. The pressure exerted by a column of 38° gravity oil would be .43x.8348 or .358964 pound per square inch for each foot of height of column. In working this problem .359 pound will be used.

In the first proposition the connection is made in the side of the tank about 14 inches up from the bottom. Under normal conditions the tank would not be filled to a depth of more than 7 feet 6 inches. The depth of oil above the pipe connection would therefore be about 6 feet 4 inches.

To find the pressure exerted by this column of oil against the incoming stream multiply 6⅓ feet by .359 pound and the result is 2.26 pounds.

In the second proposition the flow line runs up the side of the tank from the ground and extends at least one foot above the top of the tank. This vertical portion of the line would therefore be about 9 feet high.

In the line there are three elbows and if 2-inch pipe is used they will create a resistance against the flow of oil equal to the addition of 3 feet of pipe. This would make the total lift equal to 9 plus 3 feet or 12 feet.

Multiplying 12 feet head by .359 pound per foot of height and the pressure required to lift the oil in this instance would be 4.30 pounds per square inch.

This makes a difference of 2.04 pounds saved in head pressure by connecting into the bottom of the tank.

Upon this basis it is proven that it will require less energy to fill the tank if the flow line is connected at the bottom.

There are other things to be considered, however, in making a practical decision of this problem. These will also be considered in answering this question.

If the connection is made in the side of the tank near the bottom there will be a larger evaporation loss than there will be if the connections are through the top. With the lower connection all gas accompanying the oil must pass up through the body of oil in the tank to escape. In so doing it will become enriched with the lighter hydrocarbons and this will reduce the gravity of the oil in the tank. This reduction may be enough to lower the price of the oil more than enough to make up for any extra power required to put the oil over the top of the tank.

The proper way to connect up the flow and lease tanks is to run the line along the top of the tanks and where the oil enters the tanks provide a conductor pipe extending down into the tank nearly to the bottom. This will reduce the splash as the oil enters the tank and this tends to hold down evaporation losses. To permit the escape of the gas accompanying the oil a small hole should be drilled in the conductor pipe near the upper end close to the under side of the deck. If this is done the gas will escape into the space above the body of oil and if the tank is of the gas tight type this body of gas over the oil will exclude the air and tend to maintain the gravity of the crude oil about as it came from the well.

Without check valve in the pipe line connected into the bottom of the tank it is doubtful if the pipe line company would accept the oil. When the tank is filled the oil would tend to flow back out of the low connection and this is poor practice, even if check valve is provided, for the valve might leak and in any event it complicates the connections.

The practical way to hook up the well to the flow tank is by providing connection into the top of the tank and to get good results the pipe should extend down to a point above the pipe line connection to avoid splashing and turbulence in the oil after it reaches the receiving tank.

## Analyzing Oil Shale

**Kindly advise where I can have an oil assay made of oil shale—Mrs. L. C.**

There are a number of laboratories in the oil country equipped to make analysis of oil shale. The cost of such an analysis will depend upon the amount of work done and it is suggested you secure estimates from the laboratory after you have indicated just what work you desire done.

The U. S. Bureau of Mines has devised a convenient and reliable retort for assaying shales which consists of a gasoline or alcohol burner; cast iron mercury retort, pint size; asbestos-lined metal jacket; asbestos board cover; ring support and ring stand; one-fourth inch pipe connections to 100-cubic centimeter glass-stoppered graduate flask fitted with 60 inches of three-eighths inch pyrex glass tubing and best grade cork bushings.

All of this equipment can be secured from a dealer in chemical supplies and can be readily assembled. Manipulation, if carefully done, will result in obtaining within 5 to 10 per cent of results to be expected in a properly designed plant.

The pulverized shale is placed in the cast-iron retort and allowed to reach an even temperature between 480 and 700° F. in about one hour's time. After the first cubic centimeter of oil has accumulated in the graduate the heat is increased under the retort and distillation continued for at least another hour.

When the oil accumulated in the graduate is measured the yield is calculated as follows:

$$\frac{\text{Cubic centimeters of oil recovered} \times 240}{\text{Ounces of shale weighed into retort}} = \text{gallons of oil per ton of shale.}$$

To find approximate liquid yield (oil and combined water) the following formula may be used:

$$\frac{\text{Ounces lost by heating} \times 253}{\text{Ounces of dry shale heated}} = \text{gallons per ton.}$$

## Prospective Investor With Small Capital

**Since a trip to California last fall I have been interested in getting into the oil industry. I have a small amount of capital with which to get started and would like to know how is the best way to get a start. Is it better to buy oil rights or the land itself with the oil rights? Where in the United States is the best chance now? Is there any oil in New York state? What do you do when you want to check an area for oil? Are there any methods owned by the state that are free?—N. B. C.**

A person with small capital will have the same problems in entering the oil business as he would encounter in trying to get a foothold in any other major industry. The oil industry is well organized and bargains are few and far between and are usually taken up by someone in the industry.

There are oil fields in Cattaraugus, Allegany and Steuben counties, southwestern New York. They occupy between 50,000 and 60,000 acres in the north end of the Appalachian oil and gas region. Oil has been produced there since 1872 when northern extensions of the Bradford field, Pennsylvania, crossed the state line.

To check acreage for structure the geophysical method is used but only the drill will develop the gas or oil. This is costly and requires an organization. The states and federal government prepare geological maps but they are public property and therefore accessible to all and as such it is hard for one to gain any worthwhile information of a private or detailed nature from such sources.

You do not state your qualifications for work but if you have specialized it would be our suggestion to ascertain if your talent could be used in the oil industry and then try to get a position in the oil country and watch for opportunities to make investments.

It would not be difficult to tell you of many things you might get into but the trouble is they might not prove profitable without you had some personal knowledge as to the nature of the investment and had opportunity to watch same.

There are numerous gas and oil fields in western Pennsylvania, West Virginia, and Ohio which you could visit and contact at first hand men who have been interested in the oil industry for many years and who can give you some good advice.

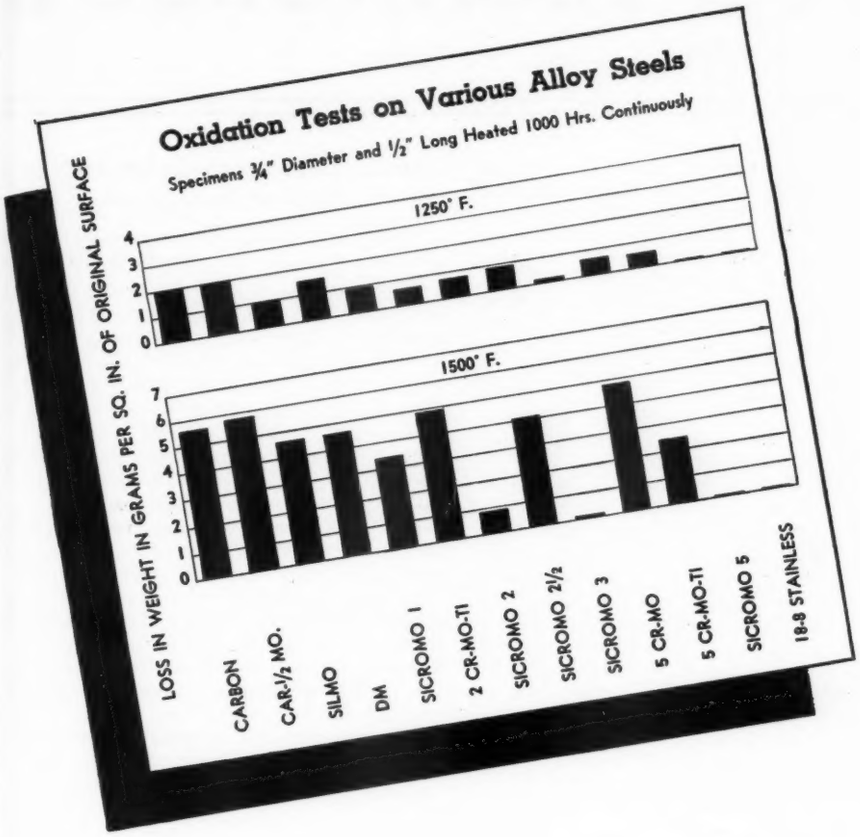
## Accuracy of Conveyor Scales

**What is the accuracy of a conveyor type scale, such as used for weighing sulfur, where the material weighed is in motion? I have been informed this type of weighing machine is usually only 30 per cent accurate.—M. S. B.**

There are several types of conveyor scales in general use in all industries. They are very commonly used for weighing package goods and if properly installed and adjusted will be accurate to within 1 per cent. In other words they will be as accurate as any type scale and the fact the conveyor handles material to be weighed does not impare efficiency of the scale or it could not be used.

It therefore follows if the particular scale you have in mind is 30 per cent from being accurate it needs adjusting or there is some other mechanical defect that should be corrected.

# Where OXIDATION is a problem




Oxidation is a major problem in refinery tubes. No two oxidation conditions are alike, however, so it is important for refinery engineers to know the comparative oxidation resistance of various steels at elevated temperatures.

Accordingly we recently carried out a series of tests in conjunction with the Department of Engineering Research of the University of Michigan and now present the accompanying tabulation of results which should be of great value to every designer and operator of cracking still and vapor phase polymerization plants.

## LOSS IN WEIGHT IN GRAMS PER SQUARE INCH OF ORIGINAL SURFACE

**After 1,000 hours continuous heating in air.**

| Steel | 1,000° F. | 1,250° F. | 1,500° F. |
|---|---|---|---|
| CARBON | 0.06 | 1.95 | 5.61 |
| CAR.-½ MO. | 0.06 | 2.03 | 5.79 |
| SILMO | 0.05 | 1.06 | 4.64 |
| DM | 0.05 | 1.49 | 4.67 |
| SICROMO 1 | 0.05 | 0.93 | 3.40 |
| 2 CR.-MO.-TI. | 0.05 | 0.64 | 4.92 |
| SICROMO 2 | 0.02 | 0.72 | 0.88 |
| SICROMO 2½ | 0.03 | 0.81 | 4.05 |
| SICROMO 3 | 0.01 | 0.08 | 0.19 |
| 5 CR.-MO. | 0.03 | 0.65 | 4.99 |
| 5 CR.-MO.-TI. | 0.02 | 0.58 | 2.40 |
| SICROMO 5 | 0.01 | 0.03 | 0.04 |
| 18-8 STAINLESS | 0.00 | 0.01 | 0.03 |

We will be glad to discuss any phase of refinery tube service at any time.

TIMKEN STEEL AND TUBE DIVISION
THE TIMKEN ROLLER BEARING COMPANY, CANTON, OHIO

HIAWATHA, Timken Bearing Equipped streamlined flyer of the Milwaukee Road

Manufacturers of Timken Tapered Roller Bearings for automobiles, motor trucks, railroad cars and locomotives and all kinds of industrial machinery; Timken Alloy Steels and Carbon and Alloy Seamless Tubing; Timken Rock Bits; and Timken Fuel Injection Equipment.

**TIMKEN**
**SEAMLESS STEEL TUBES**

# QUESTIONS ON TECHNOLOGY

By Charles K. Francis, Ph.D., Technical Editor

## Underwood Oxidation Test for Lubricating Oils

**Will you kindly give a description of the Underwood oxidation test as applied to lubricating oils?—A. C. L.**

The Underwood oxidation test is made in a special instrument which is designed to determine the loss of weight of copper-lead and cadmium alloy bearings when lubricated under fixed conditions. The Underwood bearing corrosion test apparatus is available through instrument dealers. As purchased, the instrument is equipped with an oil circulation system consisting largely of copper tubing and parts which provide active catalytic surfaces which are not desirable and which render duplication of results rather difficult. More consistent results can be obtained with iron surfaces.

In running a test on the modified Underwood apparatus, the bearings are accurately weighed after the polished surfaces are thoroughly abraded with coarse sandpaper, so that corrosion will proceed uniformly. The apparatus is then filled with 1,500 cc. of the lubricant under test and the pump and heater started. The oil pressure is regulated to 10 pounds per square inch by means of bypass valves and maintained at this pressure throughout the test. As soon as the temperature of the oil reaches 350° F., the heater and pump are turned off just long enough to put the already abraded and weighed bearings in place. Two halves are used simultaneously. At the end of each two hours the bearings are removed, cleaned with a solvent such as acetone, weighed and returned to the apparatus in as short a time as possible, leaving the apparatus running during the cleaning and weighing process. The test is terminated when each bearing has lost about half a gram in weight.

Once corrosion starts it proceeds very rapidly. Therefore by plotting the loss in weight per bearing against time, it is relatively simple to determine the approximate point at which corrosion starts.

This method was devised originally to determine the effect of motor oils on certain types of cadmium-silver and copper-lead bearings, in view of difficulty which was experienced with certain of these bearings in service and which was alleged to have been caused by the use of solvent-refined oils. Later it was found in cars where trouble was experienced that an excessively high crankcase temperature developed due to improper design of the cooling system, or curtailing of cooling system to fit the streamlined body. These difficulties have since been overcome by increasing the cooling surface.

## Temperatures For Polymerization

**Do you have any reports showing what temperatures are used when running different stocks in the polymerization process?—L. T. R.**

The question is too general and all inclusive to permit more than a brief reference to the subject. There are processes making use of only temperature with or without pressure and others with various combinations of pressure, temperature and catalysts. Most of the recent work on polymerization relates to the conversion of gases, either natural or refinery gases, to hydrocarbons of the motor fuel range.

One process, reported by Ward and Keith, may be operated with reaction coil pressures ranging from 800 to 2,200 pounds and temperatures between 900° and 1,075° F. Various experiments have been made with pressures ranging from atmospheric to 4,500 pounds per square inch.

The use of a suitable catalyst makes possible relatively low temperatures and pressures. Ipatieff and Egloff report an operating pressure of 160 pounds at 475° F. in the presence of a catalyst.

A reference to the work by Dunston and Howes in the Anglo-Iranian Oil Co.'s laboratories may be cited. Methane was converted to benzol, at atmospheric pressure and temperature 1,000° C. (1,832° F.) to 1,200° C. (2,192° F.), but the butane do not require a heat above 850° C. (1,562° F.). When the temperature is reduced to 800° C. (1,472° F.), by application of pressure there is a tendency to produce higher aromatics than benzol.

The reactions in benzol formation from saturated compounds are endothermic and the reaction coil should be heated. The heat absorbed in the production of benzol from propane or butane is approximately 1,000 B.t.u. per pound of inlet gas, exclusive of the heat necessary to raise the feed to reaction temperature. To prevent coking in the tubes, short time of heating and highly turbulent flow are essential. The value of $vd/\nu$ where $v$ = gas velocity, in centimeters per second, $d$ is diameter of tube in centimeters, and $\nu$ is kinematic viscosity in stokes, should be at least 10,000-20,000.

Ethylene, propylene and butylene can be successfully polymerized without catalysts at 350° C. (662° F.) and 500 pounds pressure. The octane numbers of the gasoline so produced are not as high as those of pyrolysis benzols though the yields are higher. Poymerization is so exothermic a reaction that it is not necessary to heat the reactor, and in fact means for chilling had to be provided so that the temperature should not get out of control.

References: Keith, Jr., and Ward, The Oil and Gas Journal, Nov. 28, 1935, p. 36. Ward, same, March 19, 1936, page 137. Ipatieff and Egloff, same, May 16, 1935. Dunston and Howes, J. Inst. Petroleum Technologist, 22. 347, 1936.


CHEMICALS FOR THE PETROLEUM INDUSTRY

**Carbon Tetrachloride**

Use—Solvent for fats, oils, waxes, resins; solvent refining, fire extinguisher.

Form—Clear liquid with aromatic odor.

Formula—$CCl_4$.

Molecular weight—154

Specific gravity—1.5835

Melting point °F.—73.

Boiling point °F.—170

LIMITATIONS

| | |
|---|---|
| Carbon tetrachloride, min. % | 99.9 |
| Volatile | complete |
| Residue | without odor |
| Boiling range °F. | 165-169 |


## Metallic Greases for Lubricants and Toilet Preparations

**What metallic soaps are made in petroleum refineries and what use is made of such soaps?—C. L. G.**

There are numerous preparations made by petroleum refiners which contain metallic soaps, the variety and extent of these depending upon the refinery. The greatest volume is that of the lubricating greases but a large number of medicinal and toilet preparations are made containing metallic soaps and petroleum products.

The lead soaps are compounded with other products for making various oils and lubricating greases and to some extent, medical preparations. The calcium soaps are more extensively used in making lubricating greases than any other mineral element. The calcium soap, usually an oleate or stearate, being blended with lubricating oil. Aluminum soaps are extensively used for making greases. Tin or zinc soaps, frequently with chromium, are combined to produce oils and greases of a non-corroding type and to reduce wear. The naphthenic soaps have a special use as emulsifiers.

This is simply a brief mention of a few metallic soaps. Many others are made.

Reference: Klemgard, Lubricating Greases.

## Requirements For Limiting Gum in Gasoline Not Advisable in Specifications

**I am desirous of knowing the accepted methods in use for determining the amount of gum present in a given gasoline, both as to which is preformed or dissolved and potential gum. What is the maximum allowable content of gum to consider a gasoline as being satisfactory?—R. A. C.**

The specification for the two standard gasolines United States Government Motor Gasoline and Motor Fuel V do not contain any requirement concerning gum either preformed or potential. The question of the gum content of a gasoline is more a matter of refinery inspection for the control of quality than to be used as a part of a general specification.

Preformed gum may be determined by the evaporation of 100 ml. in a weighted glass dish; the residue being considered as gum. Potential gum is found by heating the sample in an atmosphere of oxygen and weighing the precipitated gum.

Just what limitations should be set for the gum content of commercial gasolines has not been decided. Some gasolines show between a trace and 10 mgm. per 100 ml., but many gasolines found to give satisfactory service as motor fuels, have been known to contain between 30 and 40 mgm. per 100 ml.

References: Voorhees and Eisinger, Amer. Pet. Inst. Proc., Chicago, December 1928, reported in The Oil and Gas Journal, December 20, 1928, page 152. Nash and Howes, Principles of Motor Fuel Preparation and Application, Vol. II, Chap. XIII, page 105.

Questions on Petroleum Technology may be sent to Dr. Charles K. Francis, The Oil and Gas Journal, Tulsa, Okla. When a copy of the answer is desired postage should be enclosed.

# FIELD OPERATIONS

## *Summarizing the Week's Developments*

The Amon G. Carter-Continental Oil Co. joint test in northwestern Gaines County, West Texas, is a pool opener that will result in an unusual number of drilling wells because of the fact that many leases in that area are to expire in the not distant future. The well flows naturally and is good for 275 bbls. a day. In southwestern Ward County possibilities are good for another Delaware sand discovery in a well showing oil and 2,000,000 feet of gas. A deep Delaware sand showing is also reported from Pecos County. The prolific O'Brien field in Ward County received an extension. The Yates pool supplied another of its big initial producers flowing 2,025 bbls. in 60 minutes. Seven new wells in Upton County averaged close to 900 bbls. each initially; nine in Ward County averaged 800 bbls. each and 16 in Winkler County averaged 1,100 bbls. each. In Wichita County, North Texas, a 2,000-bbl. well is recorded flowing. Hardin County in Coastal Texas was made to look better by the completion of a wildcat 2½ miles from the discovery well, starting at 26½ bbls. of oil per hour through quarter-inch choke.

### ILLINOIS

Pure Oil Co. has another big well in Clay County, Illinois. Offsetting the discovery well, the new well is good for 1,875 bbls. a day.

### OKLAHOMA

Wildcats in Coal, Hughes, Pottawatomie and Stephens counties, Oklahoma, gave promise of opening new producing areas. Carter Oil Co. and others' well in section 34-2n-9e, Coal County, and Helmerich & Payne and others' well in section 12-1n-5w, Stephens County, made several flows the past week. Carter Oil Co. wildcat in section 34-4-9, Hughes County, and Stanolind Oil & Gas Co. and others' test in section 32-9-3e, Pottawatomie County, were showing oil but had not been tested.

### KANSAS

The Bemis pool, Ellis County, Kansas, was extended about one-half mile southwest by wells drilled by L. H. Wentz and associates and Twin Drilling Co. Alva Billings opened a new producing area in Russell County, west of the Gurney pool. The new Viola lime pool opener in Barber County was estimated good for 2,500 bbls. of oil, or better. A 4,565-bbl. well was completed in the Bloomer pool, Barton County, by Skelly Oil Co.

### ARK-LA-TEX AREA

It has been definitely shown that the Rodessa field occupies a place in three states, Arkansas, Louisiana and Texas. The north extension well is in Miller County, Arkansas. It started at 100 bbls. an hour after an acid treatment. It is regarded as good for from 2,000 to 3,000 bbls. a day on open flow. In South Louisiana Fohs Oil Co. opened a pool in Lafourche Parish with a 400-bbl. well flowing through a three-sixteenths inch choke.

### NEW MEXICO

The Monument field, Lea County, New Mexico, was extended about one-fourth mile northward by a Tide Water Oil Co. outpost in section 17-10-37, which flowed 178 bbls. of oil in one hour. An outpost east of the Eaves pool, southeastern Lea County, was completed as a 25,000,000-foot gasser.

## *Completions in All Fields*

(Week Ending June 26, 1937)

| | Oil | Gas | Dry | Total | 1937 total comp. to date | 1936 total comp. to date |
|---|---|---|---|---|---|---|
| N. Y., Pa., W. Va. | 89 | 15 | 8 | 112 | 1,863 | 1,406 |
| Ohio | 3 | 15 | 11 | 29 | 514 | 329 |
| Indiana | 0 | 0 | 0 | 0 | 42 | 82 |
| Kentucky | 17 | 6 | 11 | 34 | 256 | 111 |
| Illinois | 0 | 0 | 3 | 3 | 32 | 23 |
| Michigan | 13 | 0 | 0 | 13 | 407 | 336 |
| Kansas | 36 | 4 | 10 | 50 | 1,175 | 757 |
| Oklahoma | 42 | 1 | 13 | 56 | 1,401 | 1,220 |
| Texas: | | | | | | |
| North Central Texas | 33 | 0 | 27 | 60 | 1,404 | 1,374 |
| West Texas | 47 | 0 | 5 | 52 | 1,270 | 678 |
| Texas Panhandle | 18 | 2 | 0 | 20 | 333 | 333 |
| East Texas | 43 | 0 | 0 | 43 | 1,039 | 1,354 |
| East Central Texas | 4 | 0 | 3 | 7 | 340 | 128 |
| East Texas Border | 6 | 1 | 0 | 7 | 201 | 31 |
| Gulf Coast Texas | 35 | 3 | 5 | 43 | 725 | 573 |
| Southwest Texas | 39 | 3 | 20 | 62 | 1,588 | 1,395 |
| Total Texas | 225 | 9 | 60 | 294 | 6,900 | 5,866 |
| North Louisiana | 10 | 2 | 0 | 12 | 320 | 328 |
| Gulf Coast Louisiana | 9 | 0 | 5 | 14 | 229 | 202 |
| Total Louisiana | 19 | 2 | 5 | 26 | 549 | 530 |
| Arkansas | 0 | 0 | 3 | 3 | 60 | 46 |
| Montana | 6 | 0 | 0 | 6 | 82 | 94 |
| Wyoming | 0 | 1 | 0 | 1 | 45 | 43 |
| Colorado | 0 | 0 | 0 | 0 | 6 | 16 |
| New Mexico | 8 | 1 | 0 | 9 | 376 | 265 |
| Utah | 0 | 0 | 0 | 0 | 0 | 5 |
| California | 19 | 1 | 21 | 41 | 729 | 553 |
| Total United States | 477 | 55 | 145 | 677 | 14,437 | 11,682 |
| Total previous week | 504 | 49 | 148 | 701 | | |
| Difference | 27 | 6 | 3 | 24 | | |

## *Outstanding Fields—Highlights*

(Week Ending June 26, 1937)

| Field— | Rigs up | Wells drlg. | Weekly oil completions | Initial prod. | Total No. oil wells | Daily av. prod. |
|---|---|---|---|---|---|---|
| **TEXAS** | | | | | | |
| Amelia | 2 | 15 | 3 | 6,781 | 57 | 3,812 |
| Hastings | 8 | 10 | 10 | 5,245 | 203 | 13,050 |
| Flour Bluff | 0 | 6 | 1 | 120 | 55 | 4,050 |
| Saxet | 3 | 35 | 8 | 1,485 | 472 | 38,800 |
| North Sweden | 3 | 10 | 1 | 160 | 7 | 520 |
| East Texas | 58 | 137 | 43 | 1,360 | 22,966 | 469,500 |
| Talco | 5 | 42 | 4 | 1,253 | 357 | 32,000 |
| Ector County | 19 | 104 | 10 | 11,021 | 460 | 23,400 |
| Winkler County | 19 | 59 | 16 | 17,835 | 1,287 | 44,700 |
| **OKLAHOMA** | | | | | | |
| Oklahoma City | 2 | 8 | 0 | ..... | 1,125 | ..... |
| Fitts | 5 | 46 | 10 | 19,985 | 788 | 93,500 |
| Olympic | 1 | 6 | 3 | 135 | 363 | 11,150 |
| **KANSAS** | | | | | | |
| Ellis County | 7 | 32 | 3 | 6,077 | 125 | 8,325 |
| Reno County | 1 | 25 | 5 | 2,747 | 440 | 19,025 |
| Russell County | 10 | 67 | 11 | 17,586 | 726 | 30,860 |
| Rice County | 8 | 65 | 6 | 10,162 | 882 | 47,750 |
| **NEW MEXICO** | | | | | | |
| Lea County | 11 | 91 | 7 | 9,207 | 2,220 | 112,670 |
| **ARK-LA-TEX** | | | | | | |
| Rodessa, La.-Ark. | 7 | 17 | 1 | 245 | 381 | 49,000 |
| Rodessa, Tex. | 5 | 23 | 6 | 3,045 | 297 | 33,375 |
| Lisbon, La. | 7 | 16 | 4 | 2,100 | 42 | 12,725 |
| Schuler, Ark. | 9 | 9 | 0 | ..... | 3 | 1,675 |
| **MICHIGAN** | | | | | | |
| Buckeye | 21 | 101 | 10 | 8,474 | 140 | 15,022 |

# Eastern Field Report

By STAFF CORRESPONDENT

# WASHINGTON COUNTY'S DEEP TEST GIVES LOT OF TROUBLE

PITTSBURGH, Pa., June 28.—Continuous gas blowouts and subsequent caving in the deep test of Norwood Johnston and others on the James McBurney farm in Mount Pleasant Township, Washington County, Pennsylvania, has so retarded the work that no appreciable depth has been added in the past few months, although continuous efforts have been made. The bottom is around 6,170 feet. It has now been decided to run casing in the hole to bottom and hang it, leaving a possible chance to underdig and eventually land the casing on the Onondaga limestone. Eight-inch streamlined 38 and 36-pound casing will be used, which will make it the heaviest string of casing run in a dry hole in the East, as its dead weight will exceed 220,000 pounds. The present rig is being surveyed for the load and it will be braced and new concrete foundations made.

## SOUTHEAST OHIO

The largest gas well of the week in Southeast Ohio was Mid-East Gas Co. No. 4 S. B. Bowman, in section 32, Wayne Township. It was drilled in the Clinton sand at 4,149 feet and is good for 4,000,000 feet a day.

In Coshocton County, Kundtz-Hulse, Inc., completed a second test on the J. W. Mosholder farm in section 6, Perry Township, in the Clinton sand at 3,090 feet. There was a thousand feet of fluid in the hole the first 16 hours and it will probably make a 30-bbl. pumper after shot.

In Morgan County, A. M. Hummel and others completed a test on his fee farm 4 miles north of Chester Hill in section 30, Marion Township, in the First Cow Run sand at 202 feet. It will pump a quarter barrel a day.

In Noble County, C. W. Rich and others completed a test on the U. H. Corwin farm in the SW quarter section 7, Wayne Township, in the Berea grit at 1,413 feet. There was 400,000 feet of gas a day in the Injun sand at 978 feet and an additional 125,000 feet in the Berea grit. There was no showing of oil.

In Perry County, the Allegheny Oil Co. completed a 3-bbl. well, No. 16 Monahan, section 33, Pleasant Township, in Berea sand at 1,068 feet. In the NW quarter of section 2, Monroe Township, Daily Crude Oil Co. drilled No. 8 Robert Deaver through the Berea sand to 1,163 feet. It was a dry hole.

In Washington County, Ray Dewitt and others completed No. 3 Munn Fisher, Lot 764, Barlow Township, in the First Cow Run sand at 848 feet. It produced 3 bbls. the first day after shot. In section 19, Liberty Township, Otto Heidman completed a 200,000-foot gasser on the Marion Epler farm in the Second Cow Run sand at 1,025 feet. In Newport Village, section 27, Newport Township, H. H. Uhl and others drilled a test on the W. V. Torner lot through the second Cow Run sand to 625 feet and it was dry. In section 30, Wesley Township, W. W. Patterson drilled a test on the B. Francisco farm through the Macksburg 300-Foot sand to 585 feet and it was also a dry hole.

## SOUTHWEST PENNSYLVANIA

In Allegheny County, Pennsylvania, A. Wally & Co. completed a gas well on the Grinder Brothers farm in Ross Township. In Hampton Township, O. Miller completed a gas well on the O'Rourke farm. In this township, Keil & Co. drilled a dry hole on the Grottinger heirs farm.

In Green County, James H. Nutt, agent, deepened No. 1 John Sellers in Springhill Township to 2,134 feet and it is a gas well gauging 106,000 feet a day from the First salt and Maxton sands.

In Washington County, the Union Gasoline & Oil Corp. completed a second test on the Hysee L. Day farm in South Franklin Township at 2,874 feet. The Fifth sand was at 2,844-74 feet with about 15 bbls. a day at 2,859-66 feet.

In South Strabane Township, Washington County, Victor D. Behm and others completed a test on the Lucy Smith farm at 1,911 feet as a gas well from the Injun sand and gauging 550,000 feet a day. The top of the sand was at 1,810 feet with the gas at 1,883 feet.

In this township, the Carnegie Natural Gas Co. is drilling at 2,398 feet on the S. W. Bails farm. The Emerald Oil Co. is down 1,510 feet on the Mose Little farm, and 650 feet on the Robert White farm.

In Peters Township, Washington County, R. M. Duden & Co. are down 2,290 feet in No. 2 J. E. Johnston farm with the 50-Foot sand at 2,255-90 feet which had a small showing of oil. Phillips & Smith are drilling at 2,550 feet on the W. Donaldson farm. Benedum & Trees have reached 1,198 feet on the Mary Boone farm. Henderson and others have reached 2,115 feet on the Bell heirs farm.

In South Franklin Township, Washington County, the Dunn Mar Oil & Gas Co. is moving in a rig for No 3 J. T. Baldwin farm. The Union Gasoline & Oil Corp. has reached 665 feet in the W. B. Hazlett.

In Amwell Township, Washington County, Union Gasoline & Oil Corp. is drilling at 2,832 feet on the A. O. Vankirk farm; Equitable Gas Co., 2,417 feet on the Mary Walker farm, with the Gantz sand at 2,387 feet and 200,000 feet of gas at 2,415-17 feet; the Carnegie Natural Gas Co. 1,300 feet on No. 2 C. W. Farabee; Peoples Natural Gas Co. 1,010 feet on the Walter Redd farm; A. V. Lewis and others deepening No. 1 W. C. Dodd at 3,017 feet and rigging up the No. 2 Tucker heirs; Moore, Orrill & Co., rigging up No. 4 Hazlett.

In Washington Township, Greene County, Carnegie Natural Gas Co. made a location on the Sadie A. Connor farm, Ruffs Creek area. In Aleppo Township, Cochran and others are down 3,250 feet in the No. 3 John Strope.

In Center Township, Greene County, South Penn Oil Co. is down 1,120 feet on the Samuel Harvey No. 11; the Carnegie Natural Gas Co., rig up for No. 2 J. H. Orndoff; Union Gasoline & Oil Co., rigging up on the Mabel Bodley farm; J. B. Orndoff, rigging up No. 2 Mattie I. Scott; Manufacturers Light & Heat Co., drilling the W. L. Fordyce test.

In Franklin Township, Greene County, Manufacturers Light & Heat Co. is deepening a well on the C. C. Wood farm and reached 1,720 feet. In Cumberland Township, the Carnegie Natural Gas Co. is down 2,025 feet on the Titus farm with Big Injun sand at 1,730-1,978 feet and some gas at 1,875-78 feet. In Wayne Township, H. D. Freeland & Co. is drilling at 2,120 feet on the No. 3 D. L. Freeland.

In Gilmore Township, Greene County, Duquesne Gas Co. is drilling at 1,290 feet on the W. J. Lemmon farm; Equitable Gas Co. has reached 2,420 feet on the Z. D. Griffith farm. In Richhill Township, Smith McCracken has reached 1,200 feet on the Asa Hughes farm and the Manufacturers Light & Heat Co., 2,290 feet on the O. M. Grinnage farm.

### Deep Tests

The deep test of the Potter Development Co., William Snee and others on the Indiana Savings & Trust Co. lease in Fairfield Township, Westmoreland County, is a clear hole to bottom and it is reported that it will be drilled deeper before casing. These operators have started drilling No. 2 Summit Hotel property on Chestnut Ridge, South Union Township, Fayette County.

In Beaver County, John T. Galey and others on the Minnie Weigle heirs (Duff) farm in South Beaver Township, are drilling by tools at 4,778 feet.

In Lawrence County, Carnegie Natural Gas Co. has set 13-inch pipe and started drilling on the W. A. Currie farm in Shenango Township.

In Allegheny County, the South Penn Oil Co. is drilling at 370 feet on the Christian Z. Schove farm in Hampton Township. Murphy sand was at 346-358 feet and shows about 100,000 feet of gas. Thirteen-inch casing was run to 273 feet.

## WEST VIRGINIA

Only one small oil well was completed in West Virginia during the week. In Hancock County, the R. J. Braden Co. completed No. 51 C. E. Brenneman in Grant district at 1,085 feet, in Berea sand and it is good for 2 bbls. a day and may be used for a pressure hole.

In Braxton County, Pittsburgh & West Virginia Gas Co. completed No. 7,704, Salsbury and Bennett lease, Birch County, in Salt sand at 1,818 feet, and it is good for 300,000 feet a day.

In Brooks County, Wheeling Steel Co., on their own property in Cross Creek district, drilled to 2,040 feet. It was dry and plugged. In this district, the R. J. Braden Co. is drilling on the J. W. Walker farm and has reached 1,672 feet with a showing of oil and gas.

In Calhoun County, the Dunn Mar Oil & Gas Co. drilled a dry hole on the P. A. Reip farm in Washington district to 1,897 feet. In this district, Jeff Miller and others completed a 786,000-foot gas well on the Lona Wier farm at 2,020-35 feet.

In Gilmer County, McCall Drilling Co. test on the Clarence Rader farm in Glenville Independent district was drilled to 1,550 feet, Big Injun sand, and it is a gas well gauging 1,000,000 feet a day. In this district, Massey & Jarvis completed No. 2 George Linn heirs in the Maxton sand at 1,261 feet. It gauges 300,000 feet a day. In Center district, the Carnegie Natural Gas Co. No. 3 on the Duncan Despard farm to 1,688 feet is a gas well good for 200,000 feet a day.

In Ritchie County, the Southern Oil Co. deepened No. 3 M. L. Patterson farm in Murphy district to 2,128 feet, the Injun sand, and it is a gas well gauging 212,000 feet a day.

In Marion County, the Owens Illinois Glass Co. deepened No. 1 R. Charles Brock, Fairmont district, to 2,908 feet and it gauges 50,000 feet a day from the Gantz and Fifth sand. The Pittsburgh Coal was at 495-503 feet.

In Wetzel County, the Carnegie Natural Gas Co. drilled No. 2 Clarence Blatt, Proctor district, to 2,380 feet, through the Big Injun sand, and it is a dry hole.

### Oriskany Gas Field

No deep tests were completed in the Oriskany gas field in Kanawha County during the week. Several new locations were made. In Poca district, the United Carbon Co. made a location for a test on the Noma Bostick farm, 1,300 feet west of the Boggess heirs gas well; the West Virginia Gas Corp., a location on the D. F. Legge farm, 2,500 feet northeast of the Avilee Baldwin No. 1; Columbian Carbon Co. a location on the Mary A. Fisher farm, 1,100 feet east of the Elmer Thaxton and others lease.

In Union-Poca district West Virginia Gas Corp. made a location for a test on the Ellen Good farm 3,700 feet south 80 degrees west of the Elmer Thaxton test. In Elk district, Columbian Carbon Co. made a location on the J. W. Jones farm 1,750 feet west of the T. W. Walls gas well.

In Union district, Kanawha County, the Glenn Oil & Gas Co. is drilling Corniferous lime on the Virginia Joint Stock Land Bank lease and should reach the Oriskany this week. The casing has been set. Godfrey L. Cabot, Inc., has started drilling on the C. W. Richardson farm. The Grandview Gas Co. is down 1,525 feet with a fishing job on the Grand Memorial Park lease.

In Elk district, the Columbian Carbon Co. is drilling on the John Summers farm, with the top of the Oriskany sand at 5,144 feet. Its test on the R. L. Wolfe farm is drilling at 5,099 feet and should be completed this week. The well on the Samuel G. Jones farm is drilling at 4,850

*(Continued on Page 98)*

# Southwest Texas District

By GEORGE WEBER

# ONE-THIRD OF COMPLETIONS WERE DRY; NO DISCOVERIES

HOUSTON, Tex., June 28.—Scattered shows and few field extensions constituted the sole results of a relatively quiet week in Southwest Texas. Drilling activity was sustained at the high level of the past several weeks, with several new wildcat tests getting under way. New operations were also beginning in some fields of the area, and the more active ones showed no let-down.

Wildcat operators reported showings of oil and distillate in tests ranging from Frio County in the Balcones Fault Zone to Nueces and Jim Wells counties in the Lower Coastal area. Despite this encouraging outlook, the number of wildcat abandonments was high, 22 dry holes out of 62 completions. A number of outpost tests which had commanded considerable attention were among the failures, but new locations were staked to sustain the exploration throughout the area.

Three new field discoveries in Southwest Texas still made news. In the Balcones Fault Zone, the Wilcox Oil & Gas Co. No. 1 Gilliam, discovery well of the Batesville field was still being worked. Operators had produced the well without setting casing. The test flowed for a time, but water intrusion cut the pressure and the well went dead. Upon swabbing through a string of tubing, the test showed practically all water. The tubing was hung at 3,900 feet. Next the tubing was pulled and the well swabbed in the casing, upon which the well flowed approximately 500 bbls. and then ceased. The water is believed to be coming from the bottom of the hole, and casing will be set and cemented to combat its intrusion.

No. 1 Gilliam produces a 1[illegible]-gravity black crude from the Edwards lime at 3,948 feet. Initial production was 1,470 bbls. in the first eight hours, coming from a cavity in the top of the lime.

Another workover of a recent discovery is the Seaboard Oil Corp. No. 1 Luby. The test, located in Nueces County southeast of the town of Driscoll, was reworked when the gas-oil ratio and pressures began to increase. Casing perforations at 5,045-50 feet were recemented and the casing was reperforated at 5,048-50½ feet. A test made on the well following this showed a flow of 8 bbls. per hour through three-sixteenths inch top and bottom chokes for three hours. Working pressure was 1,450 pounds.

The Seaboard Oil Corp. has staked a location for its second test in the newly opened area, No. 1 Shaefer, in an east offset position. The same operators are drilling No. 1-C Chapman, a wildcat 4½ miles southwest of the Chapman Ranch field.

### Completion of Discovery Well

Another recent discovery, the three-quarters mile north extension to the Midway field of San Patricio County, was completed. Phillips Petroleum proved much of its acreage by bringing in its second producer in the new field for an initial production of 120 bbls. per day of fluid, 98 per cent oil.

In the same area, but to the east across the Aransas County line, the McCampbell field was again extended by completion of Atlantic Refining Co. No. 1 Porterfield. The outpost, 4,500 feet northeast of previous production, came in through perforations at 7,101-05 feet making approximately 200 bbls. per day.

The newly opened 7,100-foot sand at McCampbell has incited considerable new work, with both Atlantic and Buckingham staking new locations, and other operators moving in equipment to their leases. Six new locations were staked during the week, and eight rigs are active. A second completion during the week was Rutherford & Eaton No. 1 Scrivener, which made 500 bbls. per day, the best producer to date in the new deeper sand.

Discovery of a new producing sand in the Saxet field seemed probable this week, as the Hiawatha Oil Co. No. 7 Griffith started cleaning through a one-eighth inch choke. The test, located in Survey 416, cored a sand body at 5,332-45 feet. Casing was set at 5,580 feet and perforated at 5,533½ to 5,543½ feet. Pressures were reported at 1,295 pounds on the casing and 1,525 pounds on the tubing. The sand has been cored before in wells in the field, but this is the first time it was tested. No. 7 Griffith is bottomed at 7,230 feet, having missed the other sands in the field.

Sole new Frio producer in Saxet this week was Floboots Petroleum Co. No. 1 Bliss in the Stevens Survey. It made an initial production of 252 bbls. per day on a one-eighth inch choke from sand at 6,900-10 feet. The remaining seven completions were in the 4,400-foot Clarkwood and the 4,800-foot sands.

In western Nueces County, the Agua Dulce field seemed due for a revival in activity. The United Producing Co. No. 1 Harvey was plugged back during the week from a total depth of 9,003 to 7,388 feet. At that depth an oil sand was cored and operators are attempting completion, and discovery of a new sand in the field. Meanwhile, United has moved onto another test, and has staked a third, and Conroe Drilling Co. is starting an Agua Dulce test.

### London Setback

To the southeast, the London field received another set-back when the Atlantic Refining Co. No. 1 Stockton was found dry, further limiting production in the new field. A similar disappointment met the Phillips Petroleum Co. in the No. 1 Harney, a workover wildcat in the Calallen sector of the county. The test, which was watched with interest, encountered no reported shows and was abandoned at a total depth of 6,648 feet.

In the vicinity of the Clara Driscoll field, in southwest Nueces County, the H.P.R. Oil Co. No. 1 River Brothers, a wildcat, attracted much attention by coring a sand at 5,670-90 feet with a show of oil. The sand later tested salt water, however, and operators are drilling ahead.

### Jim Wells Activity

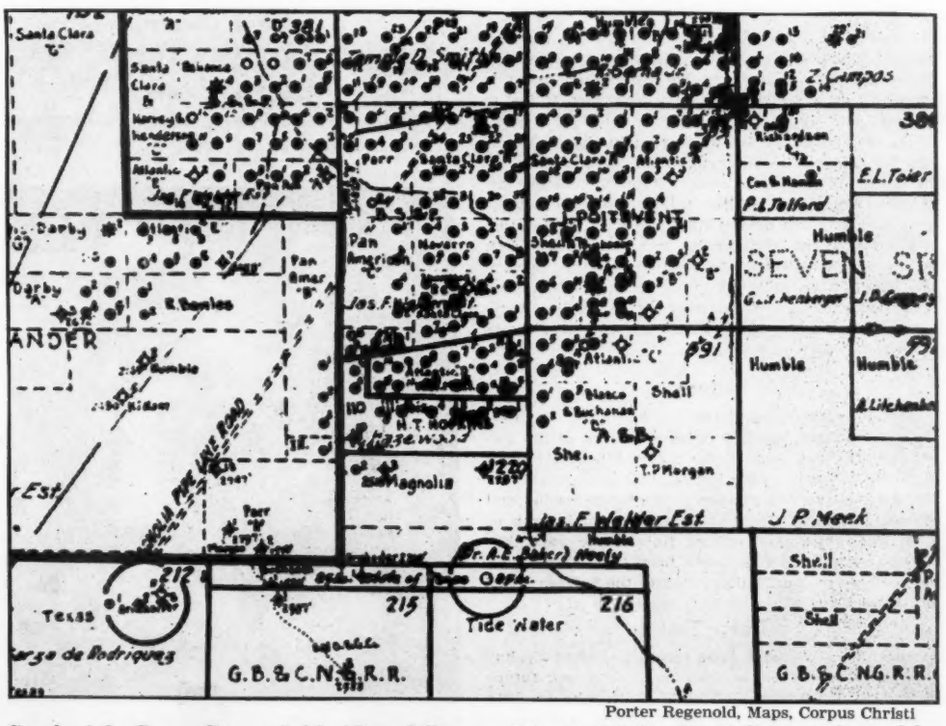
Jim Wells County today commands its share of the attention, with activity in the West Premont field, and a few wildcats. Chief among the wildcats during the week was Magnolia Petroleum Co. No. 7 Seeligson, 4 miles southeast of Ella and 1 mile west of the Kleberg County line. The wildcat had encountered sand below 5,300 feet which showed gas and distillate. On a test in the past week the recovery was 17 feet of distillate at 200 pounds working pressure from sand at 5,380-86 feet. On a second test made this week at 5,469-79 feet, 5 feet of distillate was recovered in three and one-half minutes. Operators are coring ahead.

Elsewhere in the county, in the old Armagosa gas field, the Tsesmalis No. 1 Earhart found a sand with a showing of oil and set casing at 3,170 feet. Upon perforating casing at 3,099-3,111 feet the well swabbed salt water and the test is shut down.

### A Frio Prospect

A wildcat in Frio County shows indications of a possible discovery. The Amerada Petroleum Corp. No. 1 Harrigan in the S. Flores Survey 306, north of the Leona River, is in the Edwards lime at 6,410 feet with

*(Continued on Page 82)*




Porter Regenold, Maps, Corpus Christi

*South of the Seven Sisters field of Duval County, Liberty Oil Co. No. 1 State, indicated by the circle, is approaching the pay. Although separated from Seven Sisters by dry holes, the same was true of the Brinkoeter Garza de Rodriguez tests west of it, which have made wells in sands at 2,665 and 1,560 feet*

# East and East Central Texas

By
L. E. BREDBERG

# POSSIBILITY OF PALUXY PAY IN A TALCO FIELD OUTPOST

DALLAS, Tex., June 28.—Although a previous Glen Rose test a couple of miles east of the nearest production in the Talco field in northwestern Titus County, proved a failure, interest has been created this week in possible production from the lower member of the Trinity series. The Magnolia Petroleum Co. No. 2 J. A. Chapman, in the George Dyer Survey, and an offset to an east edge well, logged 8 feet of Oolitic lime and 7 feet of sandy lime showing oil and gas in cores taken at 5,587-5,607 feet.

This test failed to make a producer in the Paluxy, upper member of the Trinity, which is the regular pay horizon in the field, and the company decided to carry deeper in search of Glen Rose production. The test is now shut down to run Schlumberger test, which will be closely watched for results. If this well produces from the Glen Rose, small producers in the Paluxy will probably be deepened in quest of the deeper production. Paluxy wells are all pumpers, the gravity of the oil is exceedingly low and is difficult to handle, especially in cold weather. Practically all wells in the field are making some water, and many of them making a lot of water, which adds to their producing costs.

The only Glen Rose producers in the East Central Texas district are two gas-distillate producers of the Tide Water Associated Oil Co. and Seaboard Oil Corp. in the Cayuga field, Anderson County, although a wildcat test at Opelika in northeastern Henderson County, drilled by the same two companies, in conjunction with the Humble Oil & Refining Co., made a small oil producer from that formation when it was produced through rock bit and drill stem which stuck in the hole. The three companies are drilling their second test on the Opelika structure, and have set a protection string of 9⅝-inch casing at 5,133 feet, such a string having been omitted in the first hole, which caused the loss of the well and delayed the opening of a pool. The second test is considered as sure for making the first real Glen Rose oil producer in the district and will be closely watched as it nears the pay horizon found in the first test, which is bottomed at 7,195 feet, 10 feet in the pay.

Another deep try for production in the district is now being tested in the Cayuga field, in the northwestern corner of Anderson County. Roeser-Pendleton, Inc. of Fort Worth, are drilling this test on the Bowyer lands and it is bottomed at 7,684 feet with an elevation of 316 feet. It has been showing free oil at 7,603-58 feet, where it is to be tested. As mentioned above their are two gas-distillate wells producing from the Glen Rose formation, and this test has only shown distillate heretofore, the new free oil showing enhancing its chances of making a deep oil producer.

### Failure

Housh and Thompson have abandoned No. 1 Spencer, fault line wildcat, about 7 miles southwest of the Sulphur Bluff field, and in the Grant Linceum Survey in Hopkins County, in the Hatchettville area, which several months ago was the scene of a lively leasing and royalty campaign. The test cored to a total depth of 4,780 feet, water sand writing finis to the possibility of the test making a producer from the Paluxy sand, pay member of the Trinity, found in the Sulphur Bluff and Talco fields.

### Deep Test

Several weeks ago a dome test at Kelsey in Upshur County was mentioned in this column as a near future fact. Tom F. Hunter of Wichita Falls, who recently abandoned a deep test in the Blackfoot area in Anderson County, has assembled a block of 2,000 acres in the Kelsey dome area, which is a good indication that he means to drill a deep test (Paluxy or Glen Rose), or farm out the block for the drilling of such a test. Others have also been actively leasing in the area since the Opelika strike was made in northeastern Henderson County a couple of months ago, that strike having engendered renewed interest in old domes and structures in the area which have not been tested for Trinity production.

### Morris Location

A tentative location for a 6,500-foot (Trinity test) in the extreme northwestern corner of Morris County, has been made on the J. F. Springfield farm in the G.C.&S.F. Survey, along an extension of the Mexia-Talco fault zone. J. O. Whittington of Amarillo has been reported as leasing some 1,500 acres for this test.

### Collin Cleaning Out

The old Collin County test of Port Bolivar Oil & Refining Co. on the Elvira Durning farm, southeast of Van Alstyne, which has been standing shut down at 4,100 feet for the past many months, is now being cleaned out by Foster Jones and others preparatory to deepening.

## EAST CENTRAL TEXAS COMPLETIONS

### Anderson County

Tide Water and others No. 2 Duncan, 4,063 feet, 76 bbls. on pump, 8 per cent water.

### Bowie County

Sutton and Hawkins No. 1 D. L. McDuffie, dry and abandoned 6,010 feet, elevation 333 feet, 2 miles southeast of New Boston.

### Fannin County

Joiner and Owens, dry and abandoned 2,728 feet, 16 miles north of Honey Grove.

### Hopkins County

Goldston and others No. 17 Smith, 4,472-4,520 feet, 40 bbls. per hour.

### Franklin County

Housh and Thompson No. 7 Owings, 4,130-4,310 feet, 468 bbls. on pump. Magnolia Petroleum Co. No. 8 Owings, 4,136-4,291 feet, 405 bbls. on pump.

### Henderson County

Clark and Cowden No. 5 Wright, 4,057-89 feet, 174 bbls. through one-eighth inch choke. Roeser-Pendleton, Inc. No. 5 Wathen, 4,062-4,103 feet, 176 bbls. through one-eighth inch choke.

### Titus County

G. M. & W. Oil Co. No. 2-32 Talco Townsite, 4,270-4,320 feet, 60 bbls. in six hours, swabbing. Merritt and Trentman No. 1 Bond, 4,170-4,320 feet, 6 bbls. per hour on swab.

## EAST TEXAS COMPLETIONS

### Smith County

Arcadia Refining Co. No. 15-A Green, 3,749-50 feet, 32 bbls. in 30 minutes. Roosth and Genecov No. 1-A Bateman, 3,771-72 feet, 31 bbls. per hour.

### Gregg County

Arkansas Fuel Oil Co. No. 11 Tuttle, 3,578-3,604 feet, 20 bbls. in 15 minutes. Atlantic Refining Co. No. 7-A Tooke, 3,556-3,710 feet, 66 bbls. per hour. Barnsdall Oil Co. No. 19 McGrede, 3,623-31 feet, 14 bbls. in 15 minutes. Bristow and others No. 8 Moore, 3,526-51 feet, 20 bbls. in 15 minutes. Empire Oil & Refining Co. No. 16 Bumpass, 3,473-3,519 feet, 27 bbls. per hour. Humble Oil & Refining Co. No. 28 Mackey, 3,568-3,577 feet, 30 bbls. per hour. L. G. & S. Oil Co. No. 15 McQueen, 3,574-84 feet, 40 bbls. in three hours on pump. Sun Oil Co. No. 17 Campbell, 3,523-27 feet, 60 bbls. per hour. Tide Water Associated No. 6-A Clemons, 3,616-32 feet, 10 bbls. in 10 minutes. Adams and Lyle No. 12 Howard, 3,604-09 feet, 60 bbls. per hour. Hugo Allen No. 2 Nolen, 3,587-3,616 feet, 20 bbls. in 20 minutes. Grace Oil Co. No. 3 Hughey, 3,504-20 feet, 20 bbls. per hour on swab. L. & G. Oil Co. No. 2 King, 3,749-52 feet, 23 bbls. in 12 hours on pump. Magnolia Petroleum Co. No. 11 Hale, 3,530-3,605 feet, 20

*(Continued on Page 98)*

*A study in smiles in the North Bethel field in Seminole County, Oklahoma. O. G. Foster, tool pusher and H. G. Hudson, driller, with J. H. Hudson Drilling Co., Ardmore, Okla., and M. C. Roberts, Shawnee, Okla., geologist for The Texas Co.*

# California Field Report

By
L. P. STOCKMAN

# EXTEND WILMINGTON FIELD 1,500 FEET BY A BIG WELL

LOS ANGELES, Calif., June 28.—Standard Oil Co. focused attention on the El Segundo field of Los Angeles Basin by completing No. 1 Refinery, flowing 2,550 bbls. of 27.7 gravity oil per day from 7,171 feet, extending the proven limits of the field 1,500 feet northwest and practically proving up Richfield Oil Corp. No. 1 Elsie for production.

The Texas Co. will soon start No. 3 El Segundo, an easterly offset to Standard No. 1 Refinery. Standard Oil Co. is expected to start a new well one location south of the initial completion. Standard No. 1 Refinery is at one of the four corners of El Segundo and Supelveda boulevards, while Richfield Oil Corp. is drilling ahead in No. 1 Elsie at 6,075 feet on the opposite corner. On the northeast corner, Ohio Oil Co. is drilling ahead in No. 4 Gough at 6,920 feet, while on the southeast corner the Texas Co. is building rig for No. 3 El Segundo.

### Wilmington

In the Wilmington field of Los Angeles Basin only five new wells were completed compared with 12 in the week before. General Petroleum Corp. proved the existence of deep production by completing No. 3 Ford, flowing 1,080 bbls. of 30.1 gravity oil daily from 5,355 feet. It was finished with 473 feet of 4¾-inch liner, including 311 feet of 60-mesh screen. The company has been testing this well by stages and it had pumped at the rate of 225 bbls. daily at 4,915-5,050 feet. The initial production does not necessarily indicate its potential as it was still building up at the close of the first 24-hour gauge. The well is between the east and west faults and it remains to be seen whether this new horizon is present east of the east fault and west of the west fault.

Union Pacific Railroad Co., developing extensive acreage in the Wilmington field, headed the completion list with three new wells with an aggregate initial production of 4,800 bbls. The largest was No. 34, flowing 2,246 bbls. of 22.6 gravity oil through a 45/64-inch bean from 3,120 feet. No. 26 was finished at 3,476 feet, flowing 1,444 bbls. of 20.6 gravity oil through a 46/64-inch bean. No. 13, bottomed at 3,904 feet, but plugged back to 3,840 feet, was finished flowing 1,110 bbls. of 26.4 gravity oil initially through a 24/64-inch bean. Royalty Service Corp. completed No. 2-B Nelson flowing 204 bbls. of 18.2 gravity oil daily. This well was carried down to 3,654 feet, but was plugged back to the completion depth, 3,490 feet, due to presence of a gray sand in the bottom of the hole.

### Huntington Beach

The California finance department has initiated the first steps to call for bids covering the leasing and development of state-owned tidelands adjacent to the Huntington Beach field of Orange County. The department proceeded with the necessary preliminaries in conformity with provisions of the Olson tideland bill passed by the state legislature and approved by Governor Merriam on May 15 despite the fact that the O'Donnell tideland bill relating to Huntington Beach is awaiting signature of the chief executive. Notices have been published advising those interested in tideland development that they may apply to the state finance department for questionnaires to establish eligibility for bidding. August 1 is the last day on which questionnaires may be filed and August 13 is the last day the finance director can determine the eligibility of prospective bidders. The final bids must be sent out to prospective bidders not later than August 23 and all bids will be opened up on September 10. Due to the fact that three tideland bills were passed by the state legislature at its last session, the situation covering tideland development is exceedingly complicated. The Olson bill carried an emergency clause making it operative at once. The O'Donnell bill was designed to supersede the Olson bill, but since it is subject to a referendum it is impossible to determine what the final status will be of the two bills.

West American Oil Co. completed No. 14 Huntington, pumping 100 bbls. of clean 19.9 gravity oil per day from 4,720 feet. This new well has a solid string of 6⅝-inch landed on bottom and it is the intention to open up some additional formation by gun perforating higher up in the hole

### Mount Poso

In the Mount Poso field of Kern County, Shell Oil Co. completed No. 19 Security in section 6-27-29, pumping 447 bbls. of 16.6 gravity oil cutting 3 per cent. It was completed in the Upper Vedder zone at 1,678 feet and finished with 67 feet of 6⅝-inch liner, including 44 feet of perforated. The company has a rig up for No. 20 Security. On the Vedder-Rall lease, in section 9-27-28. Shell was drilling No. 13 at 1,810 feet. Wells in the Mount Poso field are usually drilled from spud to completion in approximately two weeks. Vanguard Oil Co. is bailing No. 7 Baker after redrilling the hole to 1,746 feet. Top of the Vedder sand was logged at 1,730 feet and the company has finished the hole with 63 feet of 6⅝-inch liner including 42 feet of perforated. General Petroleum Corp. has concluded drilling No. 7 Heisen in section 16-27-28 and pumping equipment is scheduled to be installed within the next few days. Top of the Vedder sand was cored in this well at 1,688 feet. total depth 1,722 feet.

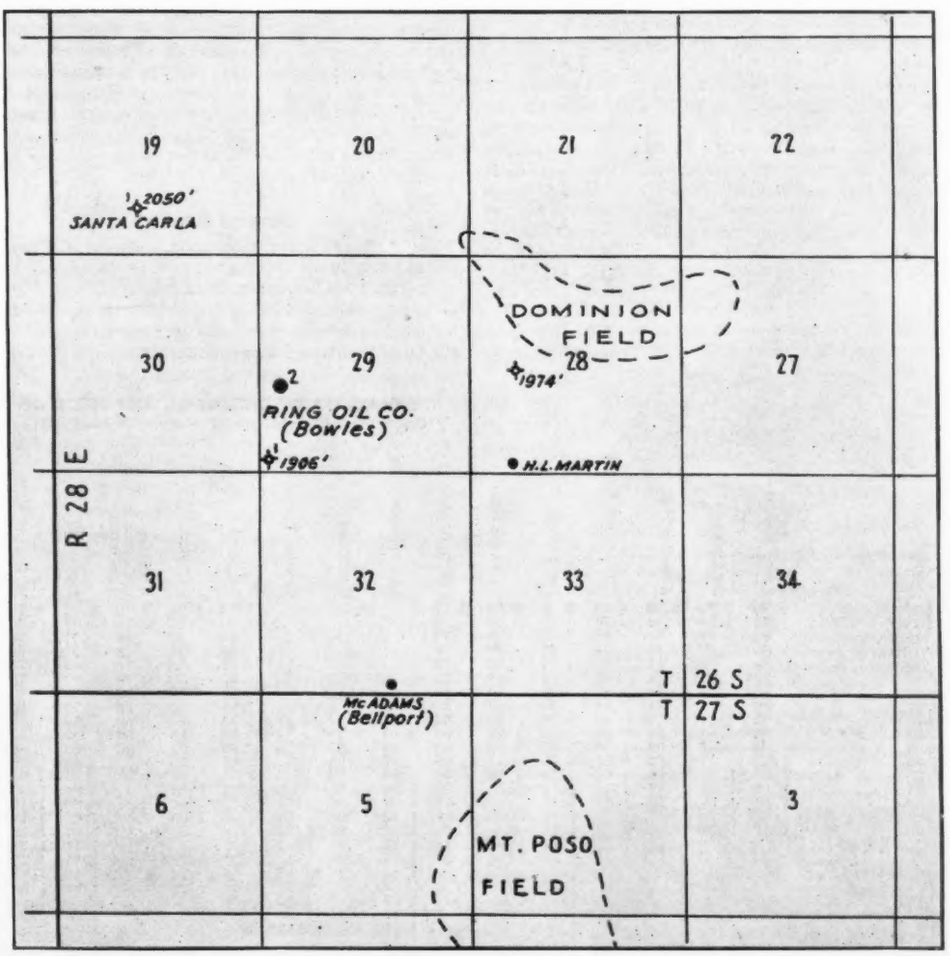
### Ten Section

In the Ten Section field of Kern County, Shell Oil Co. is rotating ahead in the pay at 8,041 feet in No. 58-29-A Kern County Land and should have it tanking oil soon. Top of the Stevens oil sand has tentatively been placed at 8,000 feet. Using this tentative depth, top of the Stevens sand is 198 feet lower structurally than the depth at which the same sand was topped in No. 6-29-A Kern County Land, which is located 2,925 feet to the northwest. A string of 7-inch casing has been landed in No. 58-29-A at 7,920 feet.

In section 14-30-25, Shell is reaming No. 2-A Kern County Land preparatory to landing casing. The hole is bottomed at 8,613 feet. No. 21 is in the Canal area, 4 miles northwest of the Ten Section field. West of Bakersfield in Kern County, Shell has reached a depth of 5,025 feet in No. 36-31-A Kern County Land in the Bellview area but has not yet logged any showings of importance.

### Greeley

Standard Oil Co. No. 11-5 Kern County Land in the Greeley field of Kern County should be ready for a pro-




*Ring Oil Co. has apparently discovered a new California oil field about 1 mile west of the Dominion field of Kern County*

duction test within a few days. It is bottomed in the pay at 7,800 feet and the company is running in a string of 2⅞-inch tubing. On a preliminary production test it flowed at the rate of 650 bbls. daily, but on actual production should make a 2,500-bbl. well. No. 11-5 is the farthest west in the Greeley field and its completion will prove the field as being approximately 1 mile wide. No. 12-1 Kern County Land, in the southern part of the Greeley field, is rotating ahead in a gray sand without showings to date at 8,370 feet and appears to be located off the structure. In section 20-29-26, No. 11-4 Kern County Land is rotating ahead at 7,489 feet and should pick up the pay within the next 300 feet if it is to result in commercial producton.

## Round Mountain

Shell Oil Co. completed its first producing well in the new field discovered east of the Round Mountain field by Eastmont Oil Co. a few months ago. Shell's No. 1 Olcese Estate in section 16-28-29, was bottomed at 1,908 feet but subsequently plugged back to 1,888 feet, due to bottom water, and brought in pumping 185 bbls. of 16.6 gravity oil cutting 6 per cent. A potential test will not be conducted for several days. This field is expected to be officially designated as the Pyramid field, the name having been derived from Pyramid Mountain, located about 2 miles from the discovery well. Honolulu Oil Corp. is rigging up pumping equipment on No. 21 in the Round Mountain field located in section 20-28-29. It is bottomed in the pay at 1,933 feet. Top of the Vedder sand was logged at 1,875 feet and the hole finished with 75 feet of 7-inch liner including 28 feet of perforated.

## Midway-Sunset

In the Midway-Sunset field of Kern County, Otis Hoyt No. 1 Maricopa in section 7-11-23 was brought in on a compressor doing 170 bbls. of 14.5 graivty oil daily after the hole had been redrilled and deepened to 1,832 feet. The crew from this well has been transferred to No. 6 Maricopa in the same section. Quality Oil Co. completed No. 2 Western Pacific pumping 520 bbls. of 15.2 gravity oil cutting 3 per cent per day upon conclusion of work at 2,186 feet. Pattiway Oil Corp No. 2 in section 12-11-24 has been competed pumping 58 bbls. of 14.5 gravity oil initially from 1,584 feet. This well was finished with 356 feet of 6⅝-inch liner carrying perforations at 1,275-1,430 feet, 1,465-1,530 feet and at 1,574-84 feet. Drilling operations in the Midway-Sunset field appear to be tapering off somewhat although new wells are being started from time to time. Standard Oil Co. is making preparations to complete two new wells in the immediate future and one of them, No. 51-33 in section 33-32-24, should be tanking oil within the next 24 hours. It has been bottomed at 2,835 feet and the hole fiinshed with 235 feet of 6⅝-inch liner including 190 feet of perforated.

## Kern County

At the extreme western end of the Lost Hills field, the Texas Co. completed No. 11-9 Theta pumping 80 bbls. of 13.9 gravity oil cutting 20 per cent initially. It had been drilled to 2,048 feet but was plugged back to the first zone at 1,252 feet. The company spudded No. 2-32 Theta. Judging by the excessive water cut shown by No. 11-9 Theta and other previous completions, the first and second zones in this district are definitely wet. Tide Water Associated Oil Co. completed two or three good wells in this district but they showed abnormally high declines and a substantial increase in the amount of water present. Out on the west front of the Kern River field, Barnett-Morrow Consolidated Oil Co. completed No. 4 Kern County Land in section 11-28-27 pumping 115 bbls. of clean 14.3 gravity oil daily from 1,978 feet and is building rig for No. 5. Republic Petroleum Co. is expected to complete No. 2 Cal Tech within the next few days and should start another well on the Strassburger property in the immediate future. In the Fruitvale field of Kern County, V. R. Wilbur completed his No. 1 in section 22-29-27, pumping 100 bbls. of 19.1 gravity oil per day from 3,835 feet, after the hole had been plugged back from 3,893 feet due to bottom water. Mohawk Petroleum Co. completed No. 23-4 Kern County Land but it came in flowing 2,000 bbls. of water instead of oil. This well, in section 23-29-27, was bottomed at 3,163 feet and finished with 60 feet of 6⅝-inch liner including 29 feet of perforated.

## Coastal Area

In the Santa Maria Valley field, Union Oil Co. completed No. 1 Russell flowing 240 bbls. of 17.7 gravity oil daily from 4,579 feet. Due to the failure of the well to remain on steady production, the company is rigging up pumping equipment and should complete an exceptionally large well. The company's No. 1 Bradley is drilling at 540 feet. Union Oil Co. has been especially aggressive in the Santa Maria Valley district and is undoubtedy the largest holder of leased acreage. Reports from Santa Maria indicate that the company has acquired an additional 640 acres from the Bradley Land Co. on a one-eighth royalty basis and a substantial cash bonus.

The Vista Del Mar Oil Co. No. 1 Williams in the Summerland district, section 16-4-26, is being cleaned out at 1,604 feet. In the Santa Barbara Mesa field, the Oatman Rainbow Gold Mining Co. tested No. 1 in section 28-4-27 after plugging back from 2,054 feet to 2,002 feet, and the well come in flowing mud, water and oil through a 12/64-inch bean. The well is flowing only a small quantity of oil and is making approximately 1,000 feet of gas per day. In the Ventura Avenue field, Tide Water Associated Oil Co. completed No. 60 Lloyd making 70 bbls. of 25.8 gravity oil per day on a compressor. It was bottomed at 7,070 feet and finished with 1,158 feet of 5½-inch liner including 1,094 feet of perforated.

## Los Angeles Basin

In the Long Beach field, A. T. Jergins Trust completed No. 29 Municipal at 3,005 feet, pumping 176 bbls. of 22.2 gravity oil, cutting 5 per cent intially. Arnold Drilling Co. No. 1 Harvey was recompleted, pumping 112 bbls. of 25.1 gravity oil cutting 15 per cent after the hole had been plugged back from 6,153 feet to 5,812 feet.

In the Torrance field of Los Angeles Basin, No. 2 Redondo of the Weber-Butler Oil Co. has been completed, pumping 125 bbls. of 25.6 gravity oil initially from 4,528 feet. This new well carries perforations at 4,334-48 feet, 4,368-4,418 feet, 4,478-9 feet and at 4,507-13

*(Continued on Page 82)*

### TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

| | Total this week | Daily average | Total last week | Daily average | This year to date | Same time last year |
|---|---|---|---|---|---|---|
| Intercoastal-domestic: | | | | | | |
| Diesel and gas oil | ..... | ..... | ..... | ..... | 176,726 | 151,541 |
| Gasoline | 184,820 | 26,403 | ..... | ..... | 1,611,790 | 2,986,151 |
| Kerosene | ..... | ..... | ..... | ..... | 198,231 | 649,430 |
| Foreign exports: | | | | | | |
| Crude oil | 535,822 | 76,546 | 69,969 | 9,996 | 6,297,375 | 4,323,897 |
| Fuel oil | 449,213 | 64,173 | 185,006 | 26,429 | 6,655,492 | 4,958,621 |
| Diesel and gas oil | 117,581 | 16,797 | 80,221 | 11,446 | 3,206,557 | 2,711,617 |
| Gasoline | 124,616 | 17,802 | 37,048 | 5,293 | 3,469,256 | 3,336,841 |
| Kerosene | 125,318 | 17,903 | ..... | ..... | 1,094,687 | 595,079 |
| Other unfinished oil | 15,060 | 2,151 | ..... | ..... | 417,760 | 16,894 |
| Coastwise-domestic: | | | | | | |
| Crude oil | 151,206 | 21,601 | 158,108 | 22,587 | 3,242,097 | 3,514,195 |
| Fuel oil | 240,904 | 34,415 | 356,286 | 50,897 | 6,906,736 | 4,232,705 |
| Diesel and gas oil | 18,958 | 2,708 | 6,186 | 884 | 1,071,047 | 629,366 |
| Gasoline | 369,665 | 52,809 | 407,472 | 58,210 | 6,378,605 | 5,903,821 |
| Kerosene | 7,076 | 1,011 | ..... | ..... | 96,778 | 100,398 |

### TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

| | | | | | | |
|---|---|---|---|---|---|---|
| Intercoastal domestic: | | | | | | |
| Diesel and gas oil | ..... | ..... | ..... | ..... | 152,932 | ..... |
| Gasoline | ..... | ..... | ..... | ..... | 25,778 | 147,054 |
| Asphalt | ..... | ..... | 75,611 | 10,801 | 141,401 | 68,586 |
| Lubricants | ..... | ..... | ..... | ..... | 12,857 | 27,673 |
| Foreign exports: | | | | | | |
| Crude oil | ..... | ..... | 150,378 | 21,483 | 1,391,317 | 1,321,047 |
| Fuel oil | 49,430 | 7,061 | 22,640 | 3,234 | 984,218 | 1,392,424 |
| Diesel and gas oil | 108,870 | 15,553 | 18,280 | 2,611 | 1,370,094 | 550,617 |
| Gasoline | 39,016 | 5,574 | 35,592 | 5,085 | 2,511,838 | 1,589,481 |
| Kerosene | 52,433 | 7,490 | 1,290 | 184 | 355,360 | 389,174 |
| Lubricants | 43,778 | 6,254 | ..... | ..... | 307,142 | 150,074 |
| Coastwise-domestic: | | | | | | |
| Fuel oil | 206,374 | 29,482 | 168,753 | 24,108 | 3,016,336 | 3,420,575 |
| Diesel and gas oil | 39,451 | 5,636 | 39,577 | 5,654 | 434,462 | 316,875 |
| Gasoline | 128,491 | 18,356 | 125,138 | 17,877 | 2,080,191 | 2,324,963 |
| Kerosene | ..... | ..... | 2,972 | 425 | 75,066 | 69,401 |

### STANDARD OIL CO. OF CALIFORNIA AND UNION OIL CO.
**Crude oil prices at the well effective June 22, 1936**

| Gravity— | Signal Hill (Long Beach) | Seal Beach | Alamitos Heights | Huntington Beach | Inglewood | Playa del Rey | Olinda-Brea Canyon | Athens-Rosecrans | Dominguez | Elwood Terrace | Torrance | Richfield | Whittier E. Coyote (La Habra) | Montebello | W. Coyote Hills | Santa Fe Springs | Mountain View | Elk Hills Buena Vista Hills Midway-Sunset Lakeview Area | Lost Hills | Coalinga | Wheeler Ridge | Kettleman Hills | Santa Paula* | Orcutt* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14-14.9 | $.80 | $.79 | $.74 | $.78 | $.79 | $.80 | $.76 | .... | .... | .... | $.80 | $.76 | $.76 | $.77 | $.78 | .... | .... | $.70 | $.70 | $.70 | .... | .... | $.70 | .... |
| 15-15.9 | .80 | .79 | .74 | .78 | .79 | .80 | .76 | .... | .... | .... | .80 | .76 | .76 | .77 | .78 | .... | .... | .70 | .70 | .70 | .... | .... | .70 | .... |
| 16-16.9 | .80 | .79 | .74 | .78 | .79 | .80 | .76 | .... | .... | .... | .80 | .76 | .76 | .77 | .78 | .... | .... | .70 | .70 | .70 | .... | .... | .70 | $.70 |
| 17-17.9 | .80 | .79 | .74 | .78 | .81 | .80 | .76 | .... | .... | .... | .80 | .76 | .76 | .77 | .78 | .... | .... | .70 | .70 | .70 | .... | .... | .71 | .70 |
| 18-18.9 | .80 | .79 | .74 | .78 | .84 | .80 | .78 | .... | .... | .... | .82 | .76 | .76 | .77 | .78 | .... | .... | .70 | .70 | .70 | .... | .... | .73 | .72 |
| 19-19.9 | .82 | .79 | .74 | .82 | .87 | .84 | .81 | .... | .... | .... | .85 | .76 | .78 | .77 | .78 | .... | $.70 | .74 | .74 | .71 | $.70 | .... | .75 | .74 |
| 20-20.9 | .85 | .79 | .74 | .85 | .90 | .88 | .84 | .... | .... | .... | .88 | .78 | .82 | .77 | .80 | .... | .70 | .78 | .78 | .72 | .70 | .... | .77 | .77 |
| 21-21.9 | .88 | .79 | .74 | .89 | .93 | .93 | .88 | .... | .... | .... | .91 | .80 | .85 | .77 | .84 | $.78 | .73 | .82 | .82 | .74 | .70 | .... | .79 | .80 |
| 22-22.9 | .92 | .82 | .74 | .92 | .96 | .98 | .92 | .... | .... | .... | .93 | .84 | .89 | .79 | .88 | .78 | .77 | .87 | .86 | .78 | .72 | .... | .82 | .83 |
| 23-23.9 | .95 | .86 | .77 | .96 | .99 | 1.02 | .96 | $.84 | $.79 | .... | .96 | .88 | .93 | .82 | .92 | .78 | .80 | .92 | .90 | .82 | .76 | .... | .85 | .86 |
| 24-24.9 | .99 | .91 | .80 | 1.00 | 1.02 | 1.06 | .99 | .88 | .81 | .... | .99 | .91 | .96 | .85 | .96 | .82 | .84 | .97 | .94 | .86 | .79 | .... | .87 | .88 |
| 25-25.9 | 1.03 | .95 | .82 | 1.03 | 1.05 | 1.11 | 1.03 | .93 | .83 | .... | 1.02 | .95 | .... | .89 | .99 | .86 | .88 | 1.01 | .98 | .90 | .83 | .... | .90 | .91 |
| 26-26.9 | 1.06 | 1.00 | .85 | 1.07 | 1.09 | 1.16 | 1.06 | .98 | .86 | .... | 1.05 | .98 | .... | .92 | 1.03 | .90 | .91 | 1.06 | 1.02 | .... | .... | .... | .92 | .93 |
| 27-27.9 | 1.10 | 1.05 | .88 | 1.11 | 1.12 | .... | 1.10 | 1.03 | .88 | .... | .... | 1.02 | .... | .96 | 1.06 | .95 | .95 | 1.10 | 1.06 | .... | .... | .... | .95 | .... |
| 28-28.9 | 1.14 | 1.10 | .90 | 1.14 | 1.15 | .... | 1.14 | 1.07 | .90 | .... | .... | 1.06 | .... | .99 | 1.10 | .99 | .99 | 1.15 | 1.10 | .... | .... | .... | .97 | .... |
| 29-29.9 | 1.17 | 1.15 | .93 | 1.18 | 1.18 | F.O.B. | 1.17 | 1.12 | .93 | .... | .... | 1.09 | .... | 1.03 | 1.14 | 1.03 | 1.02 | 1.20 | 1.14 | .... | .... | .... | .99 | .... |
| 30-30.9 | 1.21 | 1.19 | .95 | 1.22 | 1.21 | our | 1.21 | 1.17 | .95 | F.O.B. | .... | .... | .... | 1.07 | 1.17 | 1.08 | 1.06 | 1.25 | 1.18 | .... | .... | .... | 1.01 | .... |
| 31-31.9 | .... | .... | .... | .... | 1.24 | Pipe | 1.24 | 1.22 | .97 | Ship | .... | .... | .... | 1.11 | 1.21 | 1.12 | 1.09 | 1.29 | .... | .... | .... | .... | .... | .... |
| 32-32.9 | .... | .... | .... | .... | 1.27 | Line | 1.27 | 1.27 | 1.00 | .... | .... | .... | .... | 1.14 | 1.25 | 1.16 | 1.13 | 1.34 | .... | .... | .... | .... | .... | .... |
| 33-33.9 | .... | .... | .... | .... | .... | .... | .... | 1.32 | .... | $1.28 | .... | .... | .... | 1.18 | 1.28 | 1.20 | 1.17 | 1.38 | .... | .... | .... | $1.19 | .... | .... |
| 34-34.9 | .... | .... | .... | .... | .... | .... | .... | 1.37 | .... | 1.32 | .... | .... | .... | 1.22 | 1.32 | 1.25 | 1.20 | .... | .... | .... | .... | 1.23 | .... | .... |
| 35-35.9 | .... | .... | .... | .... | .... | .... | .... | 1.42 | .... | 1.35 | .... | .... | .... | 1.25 | .... | 1.29 | .... | .... | .... | .... | .... | 1.27 | .... | .... |
| 36-36.9 | .... | .... | .... | .... | .... | .... | .... | 1.46 | .... | 1.39 | .... | .... | .... | 1.29 | .... | 1.33 | .... | .... | .... | .... | .... | 1.31 | .... | .... |
| 37-37.9 | .... | .... | .... | .... | .... | .... | .... | 1.51 | .... | 1.43 | .... | .... | .... | 1.32 | .... | 1.37 | .... | .... | .... | .... | .... | 1.35 | .... | .... |
| 38-38.9 | .... | .... | .... | .... | .... | .... | .... | 1.56 | .... | .... | .... | .... | .... | 1.36 | .... | 1.42 | .... | .... | .... | .... | .... | 1.39 | .... | .... |
| 39-39.9 | .... | .... | .... | .... | .... | .... | .... | 1.61 | .... | .... | .... | .... | .... | 1.40 | .... | .... | .... | .... | .... | .... | .... | 1.43 | .... | .... |
| 40-40.9 | .... | .... | .... | .... | .... | .... | .... | 1.66 | .... | .... | .... | .... | .... | 1.43 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |

Newhall, McKittrick, Kern River, Kern Front and Round Mountain, 70 cents for all grades. *Posted by Union Oil Co. Same company's Brea Canyon schedule stops at $1.14 for 28 degrees and over, and Belridge and Lost Hills schedule stops at $1.32 for 37 degrees and over.

BREWSTER

TRAVELING BLOCKS

- American Roller Bearings
- 36" Manganese Steel Sheaves
- 450 Ton Capacity.
- Straight Fall.
- Perfectly Balanced.
- No Weave or Wobble
- Safety Guards, rounded edges, counter-sunk Bolts and Pins.

WRITE FOR PRICES

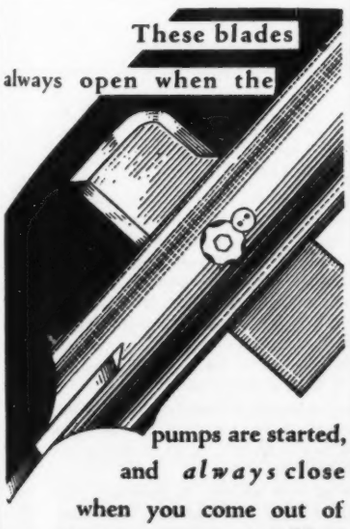
THE BREWSTER CO., INC.
Phone 3181 Shreveport, La.
Corpus Christi . Houston . Longview
Lake Charles . New Iberia
Houma . Rodessa

EST. 1870 WALL WATER LAID ROPE

Complete stocks of Oil Field Cordage carried in Mid-Continent and Gulf Coast Fields

WALL ROPE WORKS, Inc.
Houston, Texas
2000 Nance St. Telep. Cap. 0244

These blades always open when the



pumps are started, and *always* close when you come out of the hole. Just be sure you get a BAKER Wall Scraper!

BAKER ROTARY WALL SCRAPER

# Among Gulf Coast Drilling Contractors

Cron & Gracey opened a prolific deep pool east of the town of Houma in Lafourche Parish for the Fohs Oil Co. The well is No. 1 State, located in Long Lake, near Bayou Lafourche, and was drilled from piling foundation. Contract has been received for No. 2 State Long Lake which will be drilled about 1,300 feet northeast of the discovery well. Other operations are reported by this contracting firm in the Hastings, Hackberry, South Houston, Placedo and Flour Bluff fields for Stanolind Oil & Gas Co., Shell Petroleum Corp. and Humble Oil & Refining Co.

Jack Frazier, independent operator and drilling contractor of Houston, extended and opened the way for an active drilling campaign in the Hardin area of Liberty County by the completion of his No. 1 Hanchey, located 2½ miles southwest of the discovery well. New work, which is scheduled to get under way at once, will probably be done by Gulf Coast drilling contractors. Frazier has moved his rig to the northeast for No. 1 Roberts, while Woodley Petroleum Co. is scheduled to let contract for No. 1 McMurtay. Shell Petroleum Corp. has made location on its tract adjoining the extension well. Other companies which will be brought into play are Halliburton Oil Producing Co., Gulf Oil Corp., Pan American Production Co. and L. W. Wickes.

A continuation of development in old producing salt dome structures has been encouraged at two places by the completion of two large wells at Hull in Liberty County and the West Columbia field in Brazoria County. On the southwest flank of the Hull field in an area which is dotted with numerous shallow pumping wells, Houston Production Co. finaled No. 1 Hannah and on a 24-hour gauge from a total depth of 4,982 feet, it flowed 857 bbls. of pipe line oil per day through a quarter-inch choke. On the north flank of West Columbia, Sterling Oil & Refining Co. has opened the first production from the Marginulina-Frio contact with the completion of No. 1 J. G. Phillips which is flowing at an estimated rate of 400 bbls. of fluid per day of which 20 per cent is wash water and the balance 28 gravity oil. It is producing from sand topped at 5,284 feet and bottomed at 5,298 feet.

Glenn H. McCarthy is preparing to sidetrack his No. 2 Foley at the Palacios field in Matagorda County after recovering approximately 5,000 feet of stuck drill pipe at 8,068 feet. No. 1 Bay Shore Farms, Inc., being drilled for the Sun Oil Co., is below 3,500 feet. Three rotaries are operating in the Amelia field for himself and Humble Oil & Refining Co.

Jordan Drilling Co. has completed a second producer in the southwest extension area of the Segno field in Polk County and is moving the rig 933 feet north of No. 4-B Kirby, which was drilled for Humble Oil & Refining Co. and flowed at the rate of 21 bbls. per hour from 5,300-foot sand.

Northeast of Fenton in northern Jefferson Davis Parish, much interest is centered on the wildcat test of Louisiana Crusader Oil Co. No. 1 Langley in section 36-7s-5w. The hole is bottomed at 9,045 feet and preparations are being made to drill plug from the 7-inch casing, cemented at 9,026 feet. It is reported that the hole will be carried deeper, although enough showings have been encountered to warrant making a production test. The well has attempted to blow out at a depth of 8,965 feet. Sand showing gas has been encountered in sand and shale at 8,862 feet. A Schlumberger survey is reported to have shown 6 ohms and 120 millivolts porosity from 7,358-67 feet.

On the east flank of the Edgerly field, Calcasieu Parish, Louisiana Crusader Oil Co. purchased approximately 600 acres from Charles Miller and is reported to have obligated itself to drill a test by August 15. The lease covers parts of sections 27 and 26 in Township 9s-11w.

The thirteenth producer for the southwest flank of the old Jennings field, Acadia Parish, was added and another test is in the process of completion. Glassell and others No. 1 McFarlin flowed 718 bbls. per day through a fourteen-sixty-fourths inch choke from a screen setting at 6,699-6,808 feet, the total depth. In section 42, Superior Oil Co. No. 3 Jennings Heywood topped sand showing oil at 6,530 feet and is bottomed at 6,754 feet. Seven-inch casing was cemented at 6,529 feet and the well is being completed.

In the Valentine field, Lafourche Parish, production was opened from two sands. Pan American Production Co. No. 5 Harang, in section 8, flowed 477 bbls. per day through a quarter-inch choke from a screen setting at 5,880-92 feet, the total depth, while No. 6 Harang flowed 576 bbls. per day from sand at 5,381-5,416 feet, the total depth.

On the Jefferson Island Salt dome, Iberia Parish, Jefferson Lake Oil Co. No. 414 State, Lake Pigneur cored sand showing oil at 6,626-28 feet and is coring ahead. The showing was encountered in a sidetracked hole.

Texas Co. No. 3 State, located on the Lake Mongoulois Salt dome, St. Martin Parish, made a drill stem test at 7,826-50 feet and recovered no oil or gas. It was cored to 7,852 feet where another drill stem test was scheduled to be made. Sand showing oil is reported to have been encountered in a sidetracked hole at 7,798-7,804 feet.

A NEW TECHNIQUE IN DRILLING

When you make up this joint you are ready for SAFE underreaming and provided with the

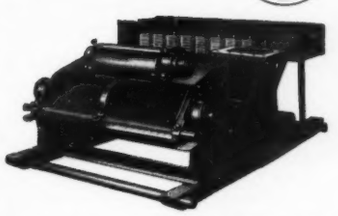
ultimate in expansion capacity. You are all set for "Baker Wall Scraping" performance!

Standco NO-SMOKE

STANDCO BRAKE LINING stands the gaff and gets the job done without scoring brake rims. See page 1636, Composite Catalog.

STANDARD BRAKE LINING CO.

McNEELY Vibrating MUD SCREEN MODEL E



A new and improved McNEELY Vibrating Mud Screen which more than meets the needs of the oil industry for a dependable supply of clean, plastic drilling fluid at lowest cost. Advantages include super-strength to withstand hardest usage; *completely unitized* design for convenient handling; large capacity; a curved screen surface (exclusive) to increase capacity and prolong screen cloth life, and simple, quick installation or removal. Vibrating frame and screen cloth are divided into two sections. Only one-half the cloth need be replaced at one time and each half is independently tensioned.

*Write for Bulletin No. 101 for complete details.*

VERNON TOOL CO., LTD.
2740 EAST 37TH STREET, LOS ANGELES, CALIF.
GULF COAST AND MID-CONTINENT REPRESENTATIVE
McNEELY MATERIALS COMPANY
2935 JENSEN DRIVE, HOUSTON, TEXAS
EXPORT
THE NATIONAL SUPPLY CORP. • OIL WELL SUPPLY CO.

# Oklahoma Operations

By DAL DALRYMPLE

# OPENING OF NEW POOLS IN FOUR COUNTIES INDICATED

Opening of new producing areas in four Oklahoma counties appeared imminent as several promising wildcat tests neared final decisions.

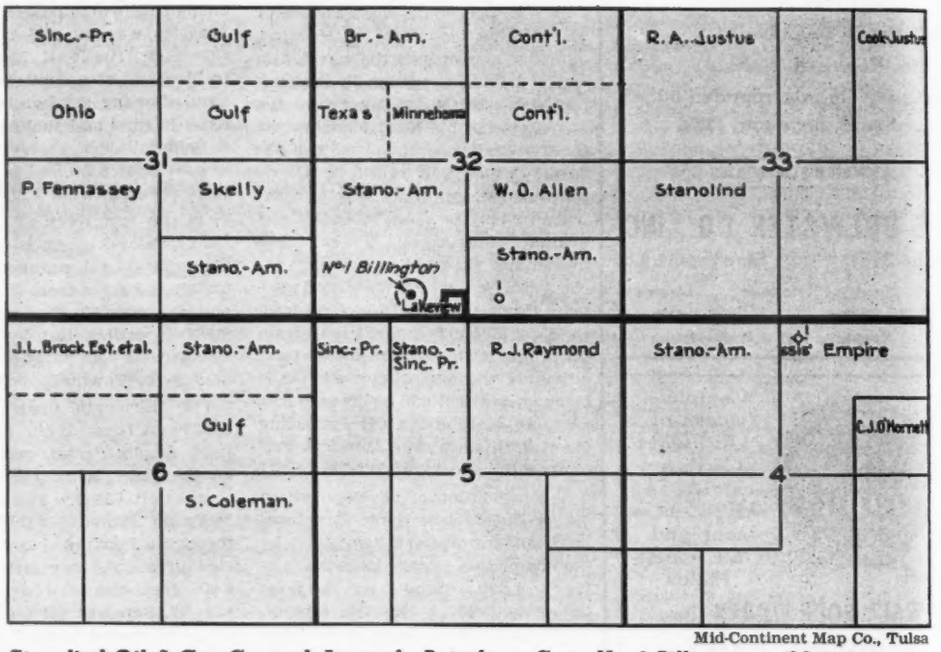
On the Centrahoma structure in Coal County, a wildcat that was abandoned temporarily last year, was producing oil. It was Carter Oil Co. and others No. 1 Thompson, C S half NE NW section 34-2n-9e. It swabbed 200 bbls. of oil through tubing in 20 hours last Saturday. Production was through perforations in Viola lime at 6,140-6,235 feet. Original total depth was 7,126 feet in Wilcox sand. Gas volume averaged 10,000,000 feet.

Near Citra in Hughes County, Carter Oil Co. and others No. 1 Hamilton, CWL NE SW section 34-4-9. gave promise of opening a small area. A showing of oil was had in cores at 5,992-99 feet, total depth 6,001 feet. It previously had shown for a small producer in McLish formation at 5,945 feet. The core was swabbing, preparatory to testing.

Opening of a new pool southwest of Tecumseh in Pottawatomie County was indicated at Stanolind Oil & Gas Co. and Amerada Petroleum Corp. No. 1 Billington, SW SE SW section 32-9-3e. After drilling plug set at 5,100 feet, gas pressure was sufficient to raise a 2,000-foot water load 1,000 feet in the hole. Bailing continued. This wildcat showed 400 feet of oil on drill stem test at 5,316-20 feet in Wilcox sand. Total depth is 5,320 feet.

Near the old Doyle area in northern Stephens County, Helmerich & Payne and others No. 1 Graham, SW SW NE section 12-1n-5w, originally drilled to 5,014 feet, was producing oil after perforating casing at 3,785-3,800 feet. It was opened June 23, flowed 68 bbls. of oil in one hour and died; was shut in for a time, opened again and flowed 174 bbls. in four hours. On June 24 it flowed 73 bbls. of oil in 40 minutes, was shut in three hours and then flowed 265 bbls. in 6½ hours. The following day it flowed 133 bbls. of oil, making a total of 713 bbls. in the three days. Gas was estimated at 1,000,000 feet.

Carter Oil Co. and others No. 1 Harley, C NE NE section 24-2s-4e, southeastern Stephens County, was drilling ahead below 6,500 feet in shale after getting shows of oil in cores at 6,368-81 feet.




Mid-Continent Map Co., Tulsa

*Stanolind Oil & Gas Co. and Amerada Petroleum Corp. No. 1 Billington, wildcat in section 32-9-3e, Pottawatomie County, is showing oil and promises to open a new pool*

## Cromwell Sand Well

Stahl Petroleum Co. No. 1-C Dennis, SW NE NW section 28-2-7, flowed 377 bbls. of oil in 24 hours through tubing from Cromwell sand topped at 2,432 feet, total depth 2,580 feet. Same company's No. 1-B Dennis, SW NE NW section 28-2-7, an old well, was plugged back from 3,632 feet to 3,585 feet, acidized, flowed 234 bbls. of oil in two hours after being shut in for 24 hours and was recompleted for old potential of 2,187 bbls.

Magnolia Petroleum Co. No. 20 Simpson, NE SE NE section 29-2-7, was completed as a Cromwell sand producer at 2,620 feet, total depth, flowing 186 bbls. of oil in 24 hours. Top of sand was 2,440 feet.

E. H. Moore No. 6-B Harper, SE NW NE section 29-2-7, found Cromwell sand at 2,575 feet, total depth 2,635 feet, perforated liner and flowed 521 bbls. of oil in 24 hours.

Sandback No. 1 Norris, SW SE SW section 28-4-6, Ada sector, was temporarily abandoned at 2,780 feet, total depth.

New work in Pontotoc County: Amerada Petroleum Corp. No. 19 Woolley, SW NE SE section 21-2-7, spudded; Stanolind Oil & Gas Co. No. 8 Norris E, SE SW SE section 25-2n-6, rig; J. Paul Getty No. 7 Masters, SE SE NW section 23-2-7, building rig; Simpson-Fell Oil Co. No. 2-B Peters, SW NW NW section 26-2-7, building rig; Magnolia Petroleum Co. No. 16 Burris A, NW SW NW section 27-2-7, rigging up rotary; same company's No. 17 Burris A, NE SW NW section 27-2-7, rig; Samedan Oil Co. No. 2-A Holkum, NE SW NE section 27-2-7, an old well, rigging up to deepen; Simpson-Fell Oil Co. No. 1-B Westheimer, SE NE NE section 27-2-7, rig on ground; Bishop Oil Co. No. 4-B Simpson, NE NW NW section 28-2-7, spudded; Stahl Petroleum Co. No. 2-C Dennis, NW NE NW section 28-2-7, cellar and pits; Magnolia Petroleum Co. No. 23 Simpson, NE SE NE section 29-2-7, rigging up rotary; E. H. Moore No. 1 Schauers, NW SW NW section 29-2-7, an old well, deepened from 1,795 feet to 1,825 feet, swabbed 60 bbls. of oil in 24 hours; same operator's No. 7-B Schauers, SE SE NW section 29-2-7, cellar and pits; same operator's No. 11-A Schauers, SW NE NW section 29-2-7, cellar and pits; Kerlyn Oil Co. No. 1 Pratt, SW SE NE section 6-4-4, machine.

## Pontotoc County

The largest producer completed during the week in the Fitts district, Pontotoc County, was Navarro Oil Co. No. 2 Horn, NW SW NW section 23-2n-7. It flowed 545 bbls. of oil through Hydril in one hour and made potential of 5,101 bbls. Production was from Hunton lime topped at 3,820 feet, total depth 3,855 feet.

J. Paul Getty No. 5 Masters, NW SE NW section 23-2n-7, found Hunton lime at 3,843 feet, total depth 3,968 feet, was shot and flowed 570 bbls. of oil in the first two hours, later making potential of 5,059 bbls.

Bishop Oil Co. No. 2-A Simpson, SE NW NW section 28-2-7, had Hunton lime at 3,347 feet, Sylvan shale 3,620 feet, total depth 3,624 feet. It was acidized, flowed 400 bbls. of oil gross in two hours, and flowing potential was 2,726 bbls.

Arrow Drilling Co. and others No. 2 Lewis, SW SW SE section 19-2-7, flowed 292 bbls. of oil net in one hour and 30 minutes after acid treatment, making potential of 1,309 bbls. Hunton lime was found at 3,669 feet, Sylvan shale 3,950 feet, total depth 4,111 feet.

Amerada Petroleum Corp. No. 15 Woolley, SW NE SE section 21-2-7, had Viola lime at 4,059 feet, Bromide 4,335 feet, total depth 4,339 feet. After acidizing, it flowed 538 bbls. of oil net in one hour and 30 minutes, later making flowing potential of 1,652 bbls.

Sinclair Prairie Oil Co. No. 2 Vivian, NW SE NW section 22-2-7, found Hunton lime at 3,812 feet, was bottomed at 3,826 feet, flowed 239 bbls. of oil in four hours through Hydril, flowed 446 bbls. in 10 hours while pulling drill pipe, and made potential of 867 bbls.

## Seminole County

Largest completion of the week in Seminole County was in the North Bethel pool at Amerada Petroleum Corp. and others No. 2 Marthia, SW SW NW section 36-10-7. It found Cromwell sand at 3,698 feet, was bottomed at 3,704 feet, swabbed and flowed 209 bbls. of oil in 4½ hours and made potential of 1,633 bbls. of oil. Gas gauged 1,600,000 feet.

Amerada Petroleum Corp. and Stanolind Oil & Gas Co. No. 1 McGill, SE SW SW section 35-11-5, swabbed 378 bbls. of oil in 19 hours from Wilcox sand topped at 4,638 feet, total depth 4,641 feet.

N. Bert Smith and others No. 1 Walker, NE NW NW section 27-8-7, had Booch sand at 3,145 feet and was completed at 3,195 feet, total depth. It pumped 20 bbls. of oil and an estimated 200 bbls. of fresh water in 24 hours, the water coming from behind the pipe.

Magnolia Petroleum Co. No. 4 fee, NW SW SW section 9-9-7, found Hunton lime at 4,071 feet, total depth 4,078 feet, acidized two times, swabbed 65 bbls. of oil net and 125 bbls. of water in 24 hours and pumped 70 bbls. of oil and 75 bbls. of water in 24 hours.

Rogers Oil & Gas Co. No. 2 Pilot, NW NE NW section 16-9-7, had Cromwell chert at 3,402 feet, was bottomed at 3,424 feet, and flowed 88 bbls. of oil in 24 hours, with 2,000,000 feet of gas.

First reports of new activity in Seminole County: Amerada Petroleum Corp. and Stanolind Oil & Gas Co. No. 1 Ellis, SW NE NE section 2-10-5, rig; Pioneer Drilling Co. No. 1 Joseph, NW NE NE section 36-10-7, building rig; Atlantic Refining Co. and Gulf Oil Corp. No. 1 Decker, SW cor. section 32-11-6, location; Empire Oil & Refining Co. No. 1 Davis A, NW NE NE section 30-7-8,

an old well to be deepened, rig; Pure Oil Co. No. 11 Reed, SW SW SE section 14-8-6, an old well being deepened, drilling at 4,385 feet; Texas Co. No. 1 Wright, NW NW NE section 32-7-6, rig; I. T. Troup No. 1 Wright, SW NW NE section 32-7-6, spudded; Paul Traugh No. 2 Scroggins, SE NE SE section 22-6-6, rig; W. B. Pine No. 5 Williams, SE NW NE section 22-6-6, drilling at 1,533 feet; same operator's No. 1 Amoson, SE SE SW section 15-6-6, location.

Mudge Oil Co. No. 1-A Anders, SW NW NW section 23-6-6, topped water sand at 2,378 feet and was abandoned at 2,380 feet, total depth. Paul Traugh No. 1 Anders, NW SW NW section 23-6-6, was dry and abandoned at 2,395 feet, total depth, when water intruded. Pioneer Drilling Co. No. 1 Edwards, NE SE SE section 35-10-7, was dry and abandoned at 3,702 feet, total depth, water encroaching.

## Estimated Daily Production

Estimated daily production of Oklahoma for the week ending June 26, and the preceding week, was as follows:

| | Barrels | |
|---|---|---|
| | June 26 | June 19 |
| Allen | 5,050 | 4,950 |
| Billings | 7,700 | 6,700 |
| Burbank | 8,150 | 8,125 |
| South Burbank | 16,125 | 15,950 |
| Balance Osage | 21,900 | 21,750 |
| Blackwell district | 5,375 | 5,350 |
| Bristow-Slick | 7,800 | 7,850 |
| Chandler | 3,025 | 3,050 |
| Crescent | 9,850 | 9,675 |
| Cromwell | 3,400 | 3,475 |
| Cushing-Shamrock | 10,800 | 10,700 |
| Duncan district | 3,950 | 4,075 |
| Edmond | 20,500 | 20,250 |
| Fish | 6,325 | 5,825 |
| Fitts | 93,500 | 97,900 |
| Jesse | 3,250 | 2,850 |
| Graham | 4,500 | 4,650 |
| Gray | 1,225 | 1,250 |
| Healdton | 10,250 | 9,975 |
| Hewitt | 4,375 | 4,475 |
| Holdenville | 925 | 900 |
| Keokuk | 9,150 | 9,250 |
| Konawa | 1,625 | 2,125 |
| Lucien | 15,500 | 15,750 |
| Moore | 14,750 | 15,250 |
| Oklahoma City | 147,075 | 142,950 |
| Olympic | 11,150 | 13,625 |
| Polo | 1,275 | 1,250 |
| Sasakwa and townsite | 2,625 | 2,300 |
| Sholem-Alechem | 3,200 | 3,225 |
| Seminole: | | |
| Bowlegs | 11,400 | 11,250 |
| Carr City | 5,750 | 5,625 |
| Earlsboro | 6,525 | 6,475 |
| South Earlsboro | 700 | 675 |
| East Earlsboro | 7,375 | 7,450 |
| Little River | 10,875 | 10,750 |
| East Little River | 1,125 | 1,050 |
| Maud | 775 | 800 |
| Mission | 2,150 | 2,225 |
| Seminole | 9,575 | 9,475 |
| East Seminole | 2,950 | 2,975 |
| Searight | 4,525 | 4,750 |
| Total Seminole | 63,725 | 63,500 |
| St. Louis-Pearson | 21,150 | 21,525 |
| Tatums | 5,650 | 5,000 |
| Tonkawa-Garber-Thomas | 4,850 | 4,825 |
| Wewoka | 3,350 | 3,125 |
| Yale-Jennings | 4,275 | 4,150 |
| Other pools | 74,750 | 74,625 |
| Total Oklahoma | 632,075 | 632,200 |

## Noble County

The largest of three new oil wells completed in the Billings field, Noble County, was Tide Water Oil Co. No. 3 Shaffer, SE NE SW section 21-23-2w. It found Wilcox sand at 4,307 feet, was bottomed at 4,334 feet, flowed 981 bbls. of oil in six hours and made potential of 3,854 bbls. Gas volume averaged 3,850,000 feet.

Tide Water Oil Co. No. 6 Hackett, NW SW SE section 21-23-2w, flowed 957 bbls. of oil in six hours, making potential of 3,795 bbls. Average volume of gas was 3,975,000 feet. Top of Wilcox sand was 4,304 feet; total depth 4,332 feet.

Phillips Petroleum Co. and Shell Petroleum Corp. No. 10 McCaughtry, NW SE NE section 21-23-2w, topped Wilcox sand at 4,272 feet, was bottomed at 4,323 feet, flowed 905 bbls. of oil in six hours and made potential of 3,570 bbls. Gas gauged 3,700,000 feet.

Tide Water Oil Co. was building rigs at No. 7 Hackett, SW SW SE section 21-23-2w, and No. 1 Hackett, SE SW SE section 21-23-2w.

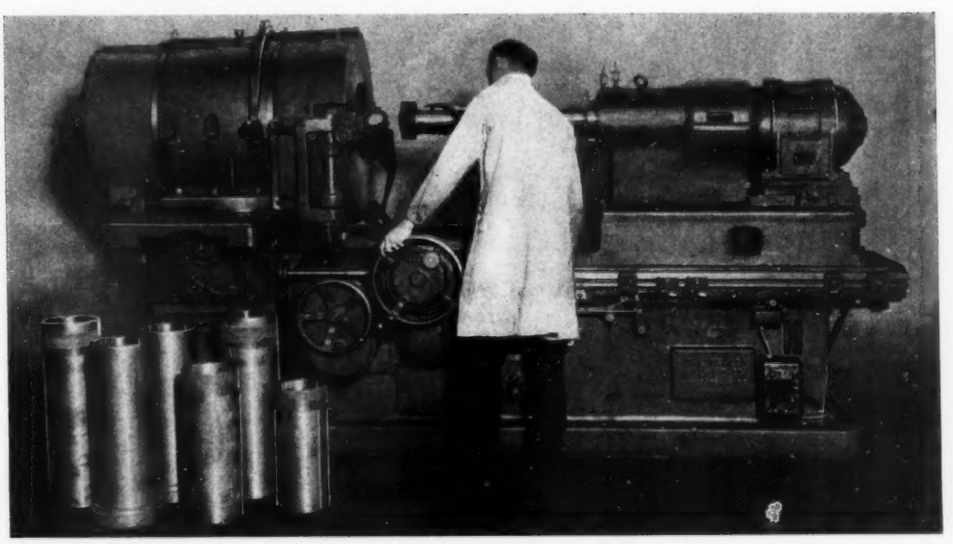
## Logan County

Mid-Continent Petroleum Corp. No. 1 East Dobson, SE cor. section 11-17-1w, Langston district, Logan County, was completed for 24-hour potential of 314 bbls. of oil at 5,091 feet, total depth. Gas volume averaged 1,100,000 feet.

Champlin Refining Co. No. 4 Pfeiffer, SW NE NW section 4-19-2w, Logan County sector of the Lucien field, found second Wilcox sand at 4,935 feet, total depth 5,073 feet, flowed 4,178 bbls. of oil in 12 hours and made po-


Why HARRISBURG Seamless & Forged STEEL PRODUCTS best meet Oil Field Needs

Fifty-ton furnaces produce relatively small heats of steel that are tailor-made to meet the metal specifications of each order.



Modern equipment, improved methods, and four decades of experience in processing oil-field products assure technical perfection.

OF all the great industries, petroleum perhaps subjects steel and its alloys to the widest range of tests. Harrisburg is proud of the fact that, today, a considerable portion of its products are used in the oil fields—striking testimony to the superiority of the metal as well as the engineering that goes into these Harrisburg products: Alloy and carbon steels; drop forged steel pipe flanges; seamless steel pipe couplings; pump liners; bull plugs; plate made cylinders; tool joint, casing, and drive shoe forgings; coils, bends; drop and hollow forgings. Immediate delivery from distributors' stocks. Send for a copy of our new catalog of oil-field products : : HARRISBURG, PENNA.

tential of 7,855 bbls. Gas volume averaged 11,000,000 feet.

### Osage County

Seven new oil wells were completed in Osage County, the largest producer being Lewis Production Co. and Texas Co. No. 10 Claremore, SW NW SE section 17-24-7, Naval Reserve area. It topped Bartlesville sand at 2,599 feet, was bottomed at 2,632 feet, was shot and flowed 273 bbls. of oil daily.

I. D. Simon and others No. 18 Osage, NW SW NW section 7-21-9, was completed as a 5-bbl. pumper at 533 feet, total depth. Pure Oil Co. No. 173 Osage, NW SW NE section 5-23-8, topped Oswego lime at 1,907 feet, total depth 1,957 feet, was acidized and flowed 87 bbls. of oil through tubing in 12 hours. Coralena Oil Co. No. 12 Carroll, SW NE SW section 15-25-6, topped Bartlesville sand at 2,772 feet, was bottomed at 2,821 feet and flowed 15 bbls. of oil daily.

Barnsdall Oil Co. No. 12 Osage, SW NW NW section 36-25-11, topped Bartlesville sand at 1,667 feet, had pay at 1,696-1,733 feet, total depth, was shot, swabbed 105 bbls. of oil, pumped 50 bbls. of oil in 24 hours. Buffalo Royalty Corp. No. 54 Osage, SE NE NE section 20-26-12, was completed as a 5-bbl. pumper after plugging back to 1,325 feet from 1,364 feet, total depth. H. C. Zelsman No. 2 Osage, SW NW SW section 26-27-11, was completed as a 15-bbl. pumper at 1,020 feet, total depth.

Midco Oil Corp. No. 1 Osage, SE SE NW section 22-23-6, wildcat, found Oswego lime at 2,565 feet, Chat 2,955 feet, Mississippi lime 2,980 feet, and was dry and abandoned at 2,992 feet, total depth. Galt Brown and others No. 3 Osage, NW SW NE section 14-24-8, had a hole full of water and was dry and abandoned at 2,680 feet, total depth. Phillips Petroleum Co. No. 47 Osage, SE NW SW section 15-25-12, was completed as a repressure well at 1,668 feet, total depth. Wolverine Oil Co. and others No. 49 North Avant Unit, SE SE NE section 31-24-12, was completed as an input well at 1,779 feet, total depth.

Wolverine Oil Co. and others No. 27 North Avant Unit, SW SW NE section 31-24-12, an old well, was deepened from 1,714 feet to 1,750 feet, pumped 50 bbls. of oil and 50 bbls. of water, recompleted. Indian Territory Illuminating Oil Co. No. 5 Osage, SW SW NE section 27-25-11, an old well, was deepened from 1,777 feet to 1,821 feet, produced 750,000 feet of gas and was recompleted.

New work in Osage County: Pure Oil Co. and others No. 174 Osage, NW NE NW section 5-23-8, location; same company's No. 175 Osage, NE SE NW NE section 5-23-8, location; H. C. Zelsman No. 3 Osage, NE NW SW section 26-27-11, location.

### Okfuskee County

Ark Royalty Co. No. 6 Brooks, SE SE SW section 18-10-9, Olympic area, Okfuskee County, found Senora sand at 1,844 feet, was bottomed at 1,899 feet, was shot and swabbed 75 bbls. of oil and 5 bbls. of water in 24 hours. Same operator's No. 12 Fisher, NW SE SE section

*H. E. Delay, driller for Helmerich & Payne, Inc., at Graham No. 1 in Marlow area. It was killed after blowing out and cratering*

18-10-9, had Senora sand at 1,813 feet, total depth 1,925 feet, was shot and pumped 30 bbls. of oil in 24 hours.

Blackwell Oil & Gas Co. and others No. 4 Lehmar B, NE NW SW section 18-10-9, pumped 30 bbls. of oil and 10 bbls. of water in 24 hours from Senora sand topped at 1,863 feet, total depth 1,885 feet.

Texas Co. No. 1 Beardon, NE SW SE section 16-10-9, an old well, was dry and abandoned after plugging back from 3,278 feet to 3,246 feet and shooting.

W. B. Pine No. 1 Knight, NE NW NE section 9-13-10, was a location. T. Palmer No. 1 Wind, SW NE SE section 36-11-9, had lower Gilcrease sand at 2,880-2,906 feet, on first report. F. W. Merrick No. 1 Mackey, NE NE SW section 29-11-10, wildcat, was building rig. Sinclair Prairie Oil Co. No. 13 Fisher, NE NW SW section 19-10-9, had spudded. Same company's No. 3 Cohee, SE SW NW section 19-10-9, had Senora sand at 1,837 feet, total depth 1,840 feet, and was rigging up standard tools. Burke-Greis Oil Co. No. 1 Rhea, SW SW SE section 14-10-9, was rigging up standard tools. Texas Co. No. 1 Cox, NE NW NW section 23-9-8, was a rig.

### Oklahoma County

Ohio Oil Co. No. 5 McMillan, NE SW SW section 31-14-3w, Edmond field, Oklahoma County, topped first Wilcox sand at 6,610 feet, second Wilcox sand 6,688 feet, total depth 6,693 feet, was acidized, flowed 129 bbls. of oil in four hours on potential test, making potential of 892 bbls.

### Cleveland County

Sinclair Prairie Oil Co. and others No. 3 Marvel, NW NE NE section 21-10-2w, Moore pool, Cleveland County, found second Wilcox sand at 7,233 feet, total depth 7,266 feet. It flowed 980 bbls. of oil in 22 hours after acidizing. Gas volume ranged as high as 30,000,000 feet. It was given an arbitrary potential of 24,108 bbls. of oil.

Sinclair Prairie Oil Co. and others No. 3-A Rice, SW NE NE section 28-10-2w, was a cellar.

### Kay County

Clipper Oil Co. No. 1-A Moore, SW cor. section 3-27-1w, Blackwell district, Kay County, found Stalnaker sand at 2,380 feet, total depth 2,383 feet, and pumped 44 bbls. of oil in 14 hours.


**You buy and sell it**
**We'll do the rest**

That holds true for *any* liquid commodity. General American will furnish tank cars of the exact type you need, will store your product safely in your private tank at any of our five strategically located terminals and will load it on a tanker for you. Truly, all you have to do is buy it and sell it . . . *we'll do the rest.*

**GENERAL AMERICAN**
**TANK STORAGE TERMINALS**

*Can Handle Anything That Will Flow Through a Pipe Line*

TERMINALS
Goodhope, La., Westwego, La.
Corpus Christi & Houston, Tex.
Carteret, N. J.

GATX GENERAL AMERICAN

OFFICE
135 South LaSalle Street
Chicago

*A division of General American Transportation Corporation*

Higdon and others No. 1 Nieman, NE NW NE section 9-26-3e, wildcat, had gas sand at 344-47 feet, was bottomed at 519 feet and produced 50,000 feet of gas.

Higdon and others No. 2 Nieman, NE NW NE section 9-26-3e, was a location. E. J. Shaffer and J. Estes No. 1 Hunchild, NE NE SW section 8-28-1w, was a location.

### Lincoln County

Stanolind Oil & Gas Co. and Amerada Petroleum Corp. No. 2 Crawford, NW NW SE section 35-15-2e, Lincoln County, was acidized, made potential of 1,258 bbls. of oil, with 2,000,000 feet of gas, and was completed at 5,154 feet, total depth. Top of Wilcox sand was 5,124 feet.

Sun Oil Co. No. 5 Cook, NE NW SW section 1-14-3e, was digging cellar and pits. Stanolind Oil & Gas Co. and Amerada Petroleum Corp. No. 3 Aranwine, SW NW SE section 35-15-12e, was a location.

### Pottawatomie County

E. W. Jones and others No. 1 Green, SE SE NE section 35-7-4, St. Louis district, Pottawatomie County, topped Dolomite at 4,190 feet, total depth 4,231 feet, was acidized and pumped 210 bbls. of oil, with an estimated 2,500 bbls. of water, initially in 24 hours.

Phillips Petroleum Co. No. 3 Richards, SW NW SE section 35-7-4, was building rig.

### Muskogee County

M. S. Mussellem No. 3 Campbell, CEL SW SE section 33-14-19, Muskogee County, bailed 30 bbls. of oil initially and was completed as a 20-bbl. pumper at 1,358 feet, total depth.

### Carter County

Carl Carter No. 11 Harley, NW SW NW section 19-2s-3w, Carter County, had sand at 463-472 feet, total depth, and was completed as a 41-bbl. pumper.

Rockland Oil Co. No. 56 Sarasota, NW NW NE section 23-4s-3w, Healdton field, pumped 25 bbls. of oil initially from sand at 1,260-93 feet, total depth. Simpson-Fell Oil Co. No. 2 Merrick, NW SE NW section 9-2s-2w, was completed as a 2½-bbl. pumper at 1,575 feet, total depth. Same operator's No. 3 Merrick, SE SE NW section 9-2s-2w, was dry and abandoned at 1,601 feet, total depth. Hefner & Bray No. 1 Hefner, SE SW SE section 4-1s-3w, had no showings or sands and was dry and abandoned at 3,015 feet, total depth, in shale.

New work in Carter County: Gulf Oil Corp. and others No. 1 McClure, C SW NW section 27-2s-3w, location; Magnolia Petroleum Co. No. 8 Woodworth, SW SE SE section 32-3s-3w, drilling at 192 feet; same company's No. 15 Dawson, SE NE SE section 4-4s-3w, location; same company's No. 71 Richards, NE NE NW section 6-4s-3w, location; their No. 72 Richards, NW SW NE section 6-4s-3w, location; Shell Petroleum Corp. No. 53 McClure, NW NE SW section 5-4s-3w, location; Sun Oil Co. and others No. 10 Arrington, NE NE NW section 8-4s-3w, spudded; Mognalia Petroleum Co. No. 11 Thompson, SW NE NW section 9-4s-3w, location.

*F. P. Arrington, district superintendent for Sunray Oil Co. at Oklahoma City*

### Marshall County

Stewart & Taylor No. 2 Chestnut, NW NE NE section 23-8s-5e, Marshall County wildcat, was drilling at 410 feet.

### Caddo County

Magnolia Petroleum Co. No. 7 Lackey, SW NE NW section 11-5n-9w, Cement area, Caddo County, had sand at 3,914-30 feet, total depth, swabbed 100 bbls. of oil in the first eight hours and was completed as a 100-bbl. pumper.

J. B. Nuchols No. 2 Rigney, NE NE NW section 12-5-9w, set 12-inch casing at 22 feet and was waiting on cement, total depth 90 feet.

### Southwestern Oklahoma

Farlyn Oil Co. No. 44 Seay, NW SW SE section 3-7s-5w, Jefferson County, pumped 60 bbls. of oil in 24 hours and was completed at 1,089 feet, total depth. Bridwell Oil Co. No. 17 Wahlgemuth, NE SE NW section 30-6s-5w, was drilling at 1,542 feet. Rips & Ungerman No. 1-A Pennington, NW NE NE section 16-7s-5w, was drilling at 275 feet.

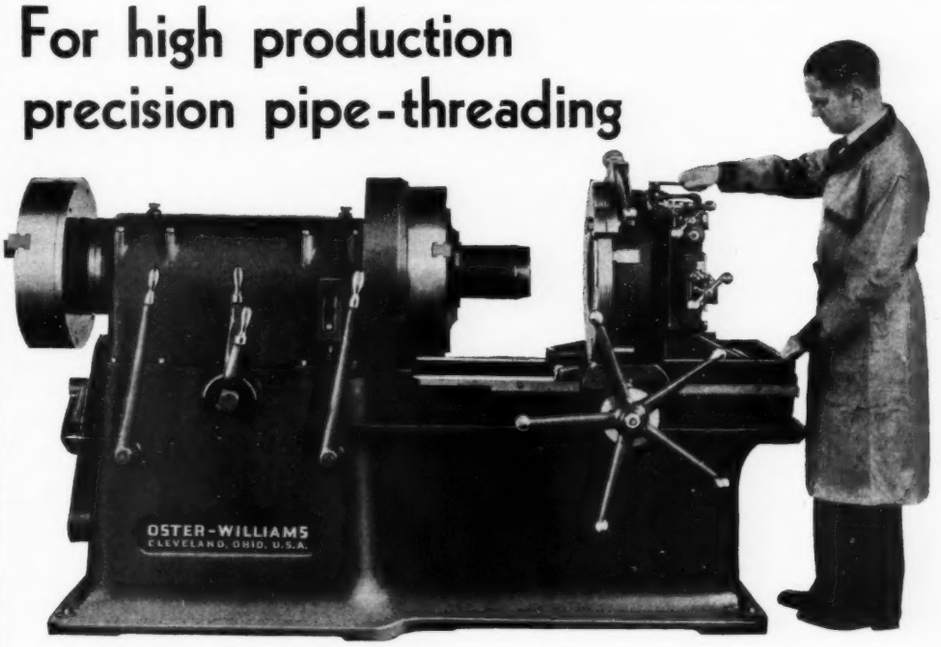
Three wells were completed in Stephens County. Carter & Ring No. 13 Arm, NE NW NE section 26-1s-5w, was a 10-bbl. pumper at 650 feet, total depth. William Angle and others No. 1 Lang, SW SW NE section 24-1n-7w, wildcat, was dry and abandoned at 5,027 feet, total depth, in sandy shale. George L. Pace and others No. 1 Tah-su-dah, SE NW SW section 27-1s-9w, wildcat, was dry and abandoned at 2,707 feet, total depth. Louis Sikes No. 5 Blake, SW NE SW section 16-1s-8w, set 10-inch casing at 20 feet and was waiting on cement.

### Scattered First Reports

New operations in Hughes County: Winona-Jarvis-Holmes No. 2 Jackson, SW NE NW section 20-7-8, cellar and pits; Pittsburgh Pipe & Supply Co. No. 1 Fish, SW

*(Continued on Page 81)*


# For high production precision pipe-threading

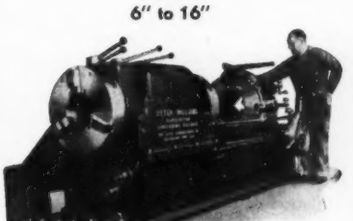



## . . . . choose one of the six sizes of RAPIDUCTIONS

The Rapiduction Die-Head handles all sizes of pipe within the range of each machine without change of dies except when change of pitch is required. In each machine the wide range of spindle-speeds permits the operator to select for each size of pipe exactly the right speed to assure maximum production. Precision threading is assured by the famous Rapiduction Die-Head. Because Rapiduction Dies are small, die-cost is low.

RAPIDUCTIONS are built in the following capacities:

No. 2
1-4" to 2"
No. 4
1" to 4"
No. 6-A
1 1-2" to 6"
No. 8
2 1-2" to 8"
No. 12
3 1-2" to 12"
No. 16
6" to 16"



No. 8-XHD—special heavy duty pipe threading and bucking up machine—the ideal combination machine for oil field requirements.

THE OSTER MANUFACTURING CO.
Sales Office: 2046 East 61st Street, Cleveland, Ohio
Factories: Erie, Penna., and Cleveland, Ohio
New York City Showroom and Office, 292 Lafayette St.

*Threading Headquarters Since 1893*

OSTER THREADING EQUIPMENT WILLIAMS RAPIDUCTION
PIPE THREADING AND CUTTING-OFF MACHINES

# Rocky Mountain Area

By
T. R. INGRAM

# MORE OUTLET FOR GARLAND; IMPORTANT UTAH TEST DRY

DENVER, Colo., June 28.—Mountain Fuel Supply Co. No. 1 Donnell, semiwildcat on Powder Wash, Moffat County, had some gas, salt water and scums of oil at 5,245-5,326 feet and will go deeper. Texas Co. and the California Co. released location for Sundance test on the Wilson Creek structure in Rio Blanco County.

Garland field in Wyoming is getting ready for increased production with Ohio Oil Co. preparing to build a 2,500-bbl. fuel oil and asphalt plant and Illinois Pipe Line Co. building tank farm and pipe line. Woods-Callahan Oil Co., Ltd., is getting under way on their important Paintrock dome test. Ohio Oil Co. released location for shallow well on Bunker Hill dome in Carbon County. The Ohio Oil Co. and California Co. No. 4 Cronberg-Union Pacific, on Big Medicine Bow made only 5,000,000 feet of gas and no oil in upper Sundance. Mountain Fuel Supply Co. completed a small gas well in Baxter Basin in its No. 3 Union Pacific.

Nadeau Brothers are drilling on Box Elder, Blaine County, Montana, for gas supply for town of Havre. Cut Bank had five completions and one new location. Completions included best well of the year in Glacier Production Co. No. 2 Neill for 450 bbls. Kevin-Sunburst had one completion and one new operation.

The California Co. and Continental Oil Co. test on San Rafael Swell in Utah encountered schist and was abandoned.

## NEW MEXICO

Tide Water Oil Co. No. 2-J State, C NW NW section 17-10-37, extended the heavy producing area of the Monument field, Lea County, about one-fourth mile northward. This outpost well flowed 178 bbls. of oil in one hour through casing and tubing. Volume of gas was 2,000,000 feet. Top of lime pay was 3,985 feet, total depth 4,035 feet. It was acidized.

Other Lea County completions were: Texas Co. No. 2-A Rhoades, SE NW SE section 22-26-37, outpost east of the Eaves pool in southeastern Lea County, produced 25,000,000 feet of sweet gas daily and was completed after a shot at 3,200-3,280 feet, total depth.

Texas Co. No. 2 Black, C NE SW section 21-24-37, total depth 3,565 feet, swabbed 40 bbls. of oil in two hours initially, after a shot at 3,445-3,565 feet. Same company's No. 1 Fristoe, C SW NW section 35-24-37, flowed 43 bbls. of oil initially in 24 hours through open tubing at 3,531 feet, total depth. Same company's No. 10 State University, C NW NW section 19-20-37, was shot at 3,838-78 feet, total depth, and swabbed and flowed 88 bbls. of oil in 14 hours initially, through tubing.

Amerada Petroleum Corp. No. 3 Loffland, C NW NE section 9-20-37, was completed at 3,780 feet, total depth, flowing 50 bbls. of oil initially. Continental Oil Co. No. 5-B-18 Britt, C SW NW section 18-20-37, was bottomed at 3,877 feet, and flowed 181 bbls. of oil an hour initially, with an estimated 12,000,000 feet of gas. Gulf Oil Corp. No. 1 Butler, C SW SE section 19-20-37, was bottomed at 3,850 feet and flowed an estimated 50 bbls. of oil a day.

Alscott Oil Co. No. 1 Gooddale, SW NW SE section 30-18-20, a small producer, was the only Eddy County completion of the week.

### Lea County—Miscellaneous

Brown & Reynolds No. 1 Parcell, C NW SE sec. 8-21-38. Wildcat; T.D. 4,397 ft.; P.B. 4,386 ft.; testing.
Amon G. Carter No. 2 Elliott, C NE SW sec. 22-22-37. T.D. 3,622 ft.; C.O.
Magnolia Pet. Co. No. 1 State G, NW NW NE sec. 24-17-34. T.D. 4,905 ft.; P.B. 4,794 ft.; C.O.; shot at 4,615-72 ft.
Continental Oil Co. No. 1 Wantz, C SW SW sec. 21-21-37. T.D. 3,872 ft.; F. 24 bbls. oil; shut in.
Samedan Oil Co. No. 3 Hughes, sec. 4-23-27. T.D. 3,631 ft.; flowed 25 bbls. per day.
Anderson-Prichard Oil Corp. No. 1 Wells, C SE SE sec. 5-25-37. Drlg. 3,148 ft.
Herschback et al No. 1 Alston, C SW NE sec. 31-17-37. Drlg. 5,300 ft.
Williams & Cockburn No. 3 Miller, C SW SW sec. 23-17-32. T.D. 3,870 ft.; to test.
Stanolind O. & G. Co. No. 3 Meyers, SE sec. 4-24-37. T.D. 3,482 ft.; set 5½-in. 3,466 ft.
Gulf Oil Corp. No. 1 Boyd, sec. 23-22-37. T.D. 3,681 ft.; testing.
Maljamar O. & G. Co. No. 3 Mitchell, C SE NE sec. 20-17-32. Drlg. 2,780 ft.
Magnolia Pet. Co. No. 1 Hanna, sec. 7-26-38. Wildcat; drlg. 3,650 ft.
Gulf Oil Corp. No. 1 Knight, sec. 27-24-37. T.D. 3,574 ft.; swabbed 75 bbls. daily; shot.
Landreth Prod. Co. No. 2 Grizzell, sec. 5-22-37. T.D. 3,425 ft.; W.O.C.
Magnolia Pet. Co. No. 3 Cary, sec. 21-22-37. Drlg. 3,427 ft.
Repollo Oil Co. No. 1 Fowler, sec. 9-24-37. Drlg. 3,507 ft.
Schermerhorn Oil Co. No. 1 Woolworth, C NW NE sec. 28-24-37. T.D. 3,234 ft.; set 7-in. csg.
Continental Oil Co. No. 1 Burger, C NW SW sec. 19-20-38. T.D. 3,900 ft.; 19 bbls. in 12 hrs; shot; C.O.
Culbertson-Irwin et al No. 1 Moseley, SE NE SW sec. 34-24-37. Drlg. 2,775 ft.
Continental Oil Co. No. 1-A-15 Cline, NW sec. 15-23-37. Wildcat; drlg. 2,890 ft.
Repollo Oil Co. No. 2 Christmas, sec. 28-22-37. Drlg. 2,310 ft.
Repollo Oil Co. No. 1 Turner, sec. 29-21-37. Drlg. 1,895 ft.
Shell Pet. Corp. No. 1 Rinewalt, NW sec. 4-22-37. T.D. 3,500 ft.; fishing.
F. J. Danglade No. 1 Christmas, C SE NE sec. 5-22-37. T.D. 3,735 ft.; to acidize.
Devonian Oil Co. No. 2 Christmas, SE sec. 28-22-37. Cellar and pits.
Devonian Oil Co. No. 3 Christmas, C SW SE sec. 28-22-37. Cellar and pits.
Magnolia Pet. Co. No. 4 Cary, C SW SW sec. 21-22-37. Derrick.
Texas Pacific Coal & Oil Co. No. 4-A State, C SW SW sec. 9-22-36. Drlg. 2,982 ft.
Stanolind O. & G. Co. No. 1 Turner, C NW NW sec. 20-20-38. T.D. 3,919 ft.; swabbing.
Ajax Drlg. Corp. No. 1 Lanehart, SW sec. 21-25-37. Rigging up machine.
Culbertson & Irwin No. 1 Boesche, NE sec. 2-21-32. Wildcat; drlg. 537 ft.
Gulf Oil Corp. No. 2 Westfall, SE sec. 15-25-37. Drlg. 3,352 ft.
Jal Natural Gas Corp. No. 2 Justis, NE sec. 20-25-37. Drlg. 2,385 ft.
Mid-Continent Pet. Corp. No. 2 Greer, NW sec. 21-22-36. Drlg. 3,789 ft.
Plains Prod. Co. No. 1 Humphreys, NE sec. 3-25-37. Loc.
Texas Co. No. 2 Lea, NE sec. 15-20-34. Drlg. 1,490 ft.
Tide Water Oil Co. No. 1 Day, C NE NW sec. 6-22-36. T.D. 3,260 ft.; set 7⅝-in. at 3,259 ft.
Continental Oil Co. No. A-5-2 Farney, C NE SE sec. 5-23-36. Drlg. 3,155 ft.
Western Gas Co. No. 3 Harrison, C NW SW sec. 20-24-37. T.D. 311 ft.; set 12½-in. csg.
Repollo Oil Co. No. 3 Jamison, SW NE NE sec. 21-24-37. T.D. 710 ft.; S.D. for repairs.
Sun Oil Co. No. 3 Stuart, C NE NE sec. 15-25-37. T.D. 3,190 ft.; testing.
Shell Pet. Corp. No. 4-M State, C Lot 15, sec 1-21-35. 8-in. csg. 1,340 ft.
Ohio Oil Co. No. 2 Turner, SW NW SE sec. 29-21-37. Drlg. 285 ft.
Humble O. & R. Co. No. 1 Williams, C SE NE sec. 34-24-37. T.D. 433 ft.; set 9⅝-in. csg. 421 ft.
Continental Oil Co. No. 1 Jack, C NW NE sec. 27-34-37. Cellar.
Empire O. & R. Co. No. 4 Clossen A, C SE SE sec. 6-22-36. Cellar and pits.
Continental Oil Co. No. 1 State, C SW NW sec. 16-22-36. Derrick.
J. W. Brown No. 1 State, C SW SW sec. 22-21-24. T.D. 495 ft.; set 15½-in. 197 ft.
Continental Oil Co. No. 1 Ailes, C SE SE sec. 35-20-38. Drlg. 3,025 ft.
Continental Oil Co. No. 1-A-17 Lockhart, C NW SW sec. 17-21-37. Drlg. 2,630 ft.
Continental Oil Co. No. 1 Stevens, C SW NW sec. 34-23-36. Drlg. 963 ft.
Culbertson & Irwin No. 1 Humphreys, NE NW NE sec. 3-25-37. T.D. 1,107 ft.; S.D.
Empire O. & R. Co. No. 2-G State, C SE SW sec. 2-21-37. Drlg. 3,720 ft.
Gulf Oil Corp. No. 1-E Arnott-Ramsey, C SW SW sec. 16-25-37. T.D. 3,236 ft.; set 5½-in. 3,230 ft.
Ohio Oil Co. No. 7 State McDonald, C SW SE sec. 16-22-36. T.D. 3,044 ft.; fishing.
Frazier Moss No. 1 Flint, C NE NE sec. 29-20-34. Cellar and pits.
McDonald & Weiner No. 1 Elliott, SE cor. sec. 19-21-37. Drk.
Western Gas Co. No. 4 Harrison, C NW SW sec. 29-24-37. Rigging up rotary.
Empire O. & R. Co. and Atlantic Ref. Co. No. 1 Hodges, NE cor. sec. 8-24-37. Cellar and pits.
Gulf Oil Corp. No. 1 Elliott, SW SE SE sec. 15-25-37. Rigging up rotary.

### Eddy County

Barnsdall Oil Co. No. 5 Dodd, sec. 22-17-29. T.D. 2,757 ft. P.B. 2,730 ft.; shot 2,580-2,730 ft.; est. 60 bbls.
Flint Prod. Co. No. 1-B State, SE sec. 20-17-30. Drlg. 3,695 ft.
Carper Drlg. No. 2 Gissler, NW sec. 23-17-30. Loc.
Repollo Oil Co. No. 1-D Parke, sec. 15-17-30. Drlg. 3,197 ft.
Flynn, Welch, Inc., No. 1-B Stevens, sec. 13-17-30. T.D. 3,496 ft.; est. 100 bbls. oil.
Barnsdall Oil Co. No. 6 Dodd, sec. 22-17-29. Drlg. 2,475 ft.
Grayburg Oil Co. No. 3 Keely, SE NE NE sec. 24-17-29. Drlg. 2,969 ft.
F. W. & Y. Oil Co. No. 3 Jackson, C NW SE sec. 13-17-30. Drlg. 2,090 ft.
F. W. & Y. Oil Co. No. 4 Gissler, C SE SE sec. 14-17-30 T.D. 2,961 ft.; set 7-in. csg.; W.O.C.
F. W. & Y. Oil Co. No. 5 Gissler, C NE SE sec. 14-17-30. Drlg. 2,926 ft.
Harry Leonard No. 10 State, SE SW SW sec. 27-17-29. Drlg. 2,515 ft.
Fred Brainerd No. 2 Brainerd, sec. 5-18-27. Drlg. 60 ft.
W. A. Nichols No. 1 Johnson, NE sec. 35-16-21. Wildcat; T.D. 580 ft.; junked hole; skidded rig.
F. E. Baker No. 1 Eddy, NE sec. 12-22-27. T.D. 55 ft.; M.I.M.
H. & W. Drlg. Co. No. 1 Danford, C SE SE sec. 9-22-29. T.D. 1,952 ft.; straightening hole.
Franklin Pet. Corp. No. 1 Nelson, NW sec. 4-18-30. Wildcat; drlg. 1,730 ft.
Pool Oil & Gas Co. No. 1 Reed, SW sec. 28-24-28. Wildcat; spudded.
F. W. & Y. Oil Co. No. 4-A Jackson, NE sec. 13-17-30. M.I.M.
F. W. & Y. Oil Co. No. 3-X Jackson, SE sec. 13-17-30. Drlg. 870 ft.
F. W. & Y. Oil Co. No. 2-A Stevens, C NW SW sec. 13-17-30. Loc.
Continental Oil Co. No. 1 Etz, C NW NE sec. 24-16-30. Moving in material.
Continental Oil Co. No. 1 Keyes, C NW NE sec. 28-20-30. Drlg. 355 ft.
William Dooley No. 1 Featherstone, NE NW NW sec. 24-20-26. Drlg. 308 ft.
C. F. Ingram No. 1 Page, NE NE SW sec. 15-21-28. T.D. 274 ft.; to set csg.
W. O. Snyder No. 1 Pecos Irrigation, C NE SE sec. 15-25-28. T.D. 575 ft.; S.D.
Superior Oil Co. No. 1 Foster, SE SE NE sec. 17-17-31. Loc.
Ed Bryant No. 1 Stebbins, C NE SW sec. 19-20-29. Drlg. 228 ft.
T. D. Collins No. 1 Weiler, C NW NW sec. 13-24-36. Spudded.
Neil H. Wills No. 1 State, C NW NW sec. 20-20-30. Drlg. 184 ft.

### Roosevelt County

Dummitt Oil Co. No. 1 Todd, SE SE sec. 34-3n-29. T.D. 656 ft.; reaming.
C. B. Peterson No. 1 Goode, NW SE SE sec. 28-5s-30. Moving in material.

### Otero County

George Mulvey No. 1 State, SW cor. sec. 11-25-8e. T.D. 263 ft.; S.D.
Fred Turner No. 1 Hattie Evans, NW NW SW sec. 22-14-12. O.W.D.D.; wildcat; drlg. 2,885 ft.

### Curry County

Bond & Harrison No. 1 Hart Ranch, C NW SE sec. 13-2n-31. T.D. 1,246 ft.; W.O.S.T.

### McKinley County

S. Dysart No. 1 Government, NE sec. 14-14-10w. T.D. 1,390 ft.; fishing.

### Monument Area

Ohio Oil Co. No. 2 State-Hansen, C W½ SW NE sec. 16-20-37. Drlg. 3,319 ft.
Amerada Pet. Corp. No. 4-T State, sec. 25-19-36. T.D. 4,055 ft.; shut in; may acidize.
Gulf Oil Corp. No. 4-F Bell-State, sec. 36-20-36. Drlg. 2,140 ft.
Phillips Pet. Co. No. 3 Hobbs, SW sec. 18-20-37. T.D. 3,870 ft.; acidized; flows by heads.
Sun Oil Co. No. 1 Barr, SW sec. 24-19-38. T.D. 4,032 ft.; swabbing.
Atlantic Ref. Co. No. 2-O State, NW sec. 32-20-37. T.D. 3,780 ft.; show oil and gas.
Tide Water Oil Co. No. 1-K State, SW sec. 13-20-36. Loc.
Repollo Oil Co. No. 4-B Phillips, NW SW NW sec. 31-19-37. Drlg. 1,120 ft.
Shell Pet. Corp. No. 3-E State, C SE NW sec. 13-20-36. Set csg. 1,020 ft.
Humble O. & R. Co. No. 1 Fopeano, C SE SW sec. 25-20-36. Drlg. 2,735 ft.
Ohio Oil Co. No. 3 State-Hansen, C W½ NE NE sec. 16-20-37. Cellar.
Continental Oil Co. No. 2 Sanderson B-10, NE SE NE sec. 10-20-36. Loc.
Repollo Oil Co. No. 6 Byrd, NE NW SW sec. 11-20-36. Drlg. 818 ft.
Texas Co. No. 1 Keohane, C NE NE sec. 18-19-37. Drlg. 1,350 ft.
Cranfill & Germany No. 1 Weir, C NE NE sec. 15-20-37. T.D. 4,174 ft.; S.D. for repairs.
Empire O. & R. Co. No. 1 Parsons, C SE SE sec. 27-19-36. Cellar and pits.
Gulf Oil Corp. No. 1 Shipp, C SE NW sec. 21-19-37. Drlg. 2,931 ft.
Gulf Oil Corp. No. 2 Gramm-State, C NW SE sec. 17-19-37. T.D. 1,390 ft.; set 7⅝-in. at 1,389 ft.
Texas Co. No. 11 Lieu Lands, C NW NW sec. 20-20-37. T.D. 3,700 ft.; set 7-in. csg.
Tide Water Oil Co. No. 3-J State, C SE NW sec. 17-19-37. Drk.
Texas Co. No. 12 Lieu Lands, C SW SW sec. 20-20-37. Moving in material.

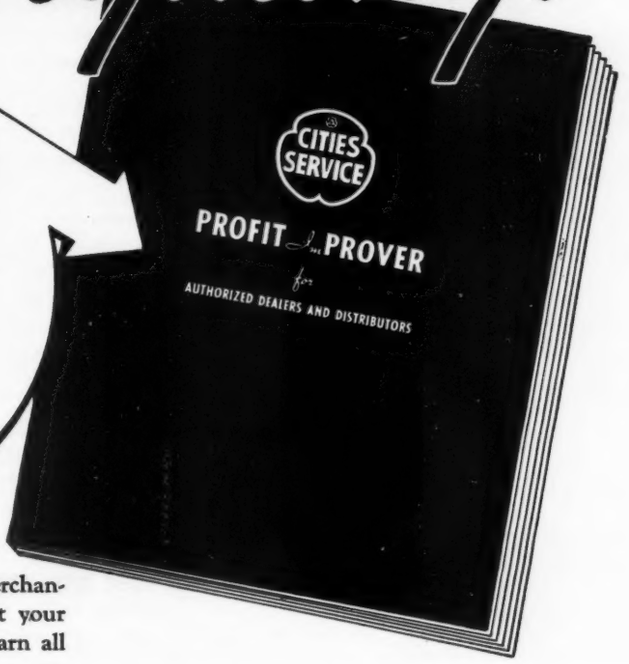
### Eunice Area

Gulf Oil Corp. No. 1 Bell-Ramsey B, C SW SW sec. 29-20-37. T.D. 3,840 ft.; C.O.
Tide Water Associated Oil Co. No. 1 Marshall, C SW NE sec. 13-21-36. T.D. 4,005 ft.; S.D. for orders.

# WAIT!

# *Hold Everything!*

## READ THIS before you sign any Franchise Contract!




CITIES SERVICE has a proved merchandising plan that can benefit your business — boost your profits. Learn all about it before you act.

No other company in the oil industry offers the comprehensive, distinctive selling plan that Cities Service offers its dealers. That's why hundreds more have signed up with Cities Service in the last few months.

Ask to see the Cities Service PROFIT ImPROVER. All the details are there — backed by proof—designed by experts to fit your own immediate problems. And it's ready to go to work for you right now. Write, wire, telephone, or mail the coupon today to your nearest Cities Service Marketing Company.

CITIES SERVICE OIL COMPANY
Chicago, Illinois

CITIES SERVICE OIL COMPANY
New York, N. Y.

CITIES SERVICE OIL COMPANY
Boston, Massachusetts

CITIES SERVICE OIL COMPANY, LTD.
Toronto, Ont., Canada

EMPIRE OIL & REFINING COMPANY
Tulsa, Oklahoma

ARKANSAS FUEL OIL COMPANY
Shreveport, Louisiana

## MAIL THIS COUPON!

CITIES SERVICE
Room 735, 60 Wall Street, New York City

Gentlemen: Without obligation on my part, please send representative to show me the plan outlined in your PROFIT ImPROVER.

*Name*_____

*Address*_____

*City and State*_____

CITIES SERVICE

RADIO CONCERTS—*every Friday at 8 P.M. (E.D.T.)* . . . *WEAF and 43 associated N. B. C. stations*

## CITIES SERVICE OILS AND GASOLENES

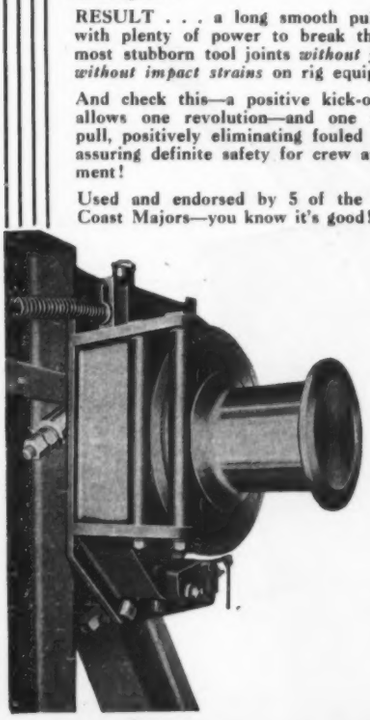
## THE MacCLATCHIE GEAROMATIC CATHEAD

THE MacCLATCHIE GEAROMATIC CATHEAD, geared two to one, gives DOUBLE the power at HALF the line shaft speed!

RESULT . . . a long smooth pull packed with plenty of power to break the largest most stubborn tool joints *without jerks* and *without impact strains* on rig equipment.

And check this—a positive kick-out device allows one revolution—and one only—per pull, positively eliminating fouled lines and assuring definite safety for crew and equipment!

Used and endorsed by 5 of the 6 Pacific Coast Majors—you know it's good!



## MacCLATCHIE "HYDRO-SEAL" PLUG VALVES

MacCLATCHIE "HYDRO-SEAL" PLUG VALVES, the choice of operators the world over, have grease-expanded lips that spread evenly against the walls of the body insuring an absolutely pressure tight seal. In the high pressure models easy turning is assured under ALL conditions by the elimination of compressible packing and the use of ball bearings to carry the thrust loads.

A complete range of sizes is available in screw, flange, or union ends . . . hand or gear operated . . . and for pressures from 250 to 3,000 lbs.

Write for complete information on these famous MacClatchie tools!

**MacCLATCHIE**
MANUFACTURING COMPANY
COMPTON, CALIF. - HOUSTON, TEXAS
Export—Geo. R. Woods, 17 Battery Pl., New York City


Gulf Oil Corp. No. 4 Campbell, sec. 7-21-36. Drlg. 3,110 ft.
Empire O. & R. Co. No. 1-G State, sec. 2-21-36. T.D. 3,900 ft.; S.D.
Gulf Oil Corp. No. 5 Collins, sec. 14-21-36. Drlg. 3,400 ft.
Humble O. & R. Co. No. 2-G State, C NE NW sec. 23-21-36. Drk.
Stanolind O. & G. Co. No. 1 Hill, C Lot 16, sec. 5-21-36. T.D. 3,555 ft.; drlg. plug.
Republic Prod. Co. No. 1 State, SE sec. 12-21-35. Drlg. 3,555 ft.
Magnolia Pet. Co. No. 4 Carson, SW sec. 28-21-37. Drlg. 3,330 ft.
Gulf Oil Corp. No. 3 King, NW sec. 28-21-37. T.D. 3,605 ft.; set 5½-in. 3,598 ft.
Stanolind O. & G. Co. No. 2 McQuatters, C NW NE sec. 11-21-36. Drlg. 2,815 ft.
Continental Oil Co. No. B-30-1 Lockhart, C SE SW sec. 30-21-36. R.U.R.
Gulf Oil Corp. No. 1-D Janda, C NW SW sec. 2-21-36. Drk.

**Chaves County**

English & Harmon No. 1 Billingslea, SE sec. 9-15-29. T.D. 2,747 ft.; S.D. for repairs.

**Dona Ana County**

Juels C. Bertrand No. 1 Casad Permit, sec. 24-26-5e. T.D. 47 ft.; S.D.O.

**Hobbs Area**

Stanolind O. & G. Co. No. 8 Terry, C NW SE sec. 9-19-38. Loc.

**Sims Area**

Gulf Oil Corp. No. 1 Davis, sec. 8-23-27. T.D. 3,712 ft.; P.B. 3,702 ft.; fsg. after shot.
J. E. Farrell No. 2-B Walden, C NE SW sec. 15-22-37. T.D. 3,465 ft.; drlg. by.
J. E. Farrell No. 2-C Walden, C SE SW sec. 15-22-37. Drlg. 3,665 ft.
Empire O. & R. Co. No. 2 Walden, sec. 21-22-37. T.D. 3,610 ft.; C.O.
Skelly Oil Co. No. 5 R. R. Sims, sec. 3-23-37. T.D. 3,410 ft.
Tide Water Oil Co. No. 3 Walden, sec. 21-22-37. T.D. 3,615 ft.; cleaning out.
Skelly Oil Co. No. 3 R. R. Sims, sec. 4-23-37. T.D. 3,670 ft.; lost shot in hole.
Amerada Pet. Corp. No. 1 Corrigan, SW SW NE sec. 4-22-37. Drlg. 3,382 ft.
Rowan Drlg. Co. No. 1 Walden, C NW NW sec. 15-22-37. T.D. 3,425 ft.; set 7-in. 3,234 ft.
Gulf Oil Corp. No. 1 Baker, C SE SE sec. 5-22-37. Drlg. 3,650 ft.
Skelly Oil Co. No. 3 H. O. Simms, NW sec. 3-23-37. Drlg. 2,581 ft.
Rowan Drlg. Co. No. 1-A Elliott, SW sec. 27-22-37. T.D. 1,170 ft.; standardizing.
Gulf Oil Corp. No. 1 Monda, C SE SW sec. 21-22-37. Drlg. 2,150 ft.
W. H. Street No. 2 Wood, C SW NE sec. 22-22-37. Drlg. 40 ft.
Gulf Oil Corp. No. 3 Cole, C SE NE sec. 16-22-37. Drk.
Gulf Oil Corp. No. 2 Cole, C NE NE sec. 16-22-37. T.D. 1,141 ft.; S.D.
Mid-Continent Pet. Corp. No. 1 Owen, C NW NW sec. 3-22-37. Drlg. 762 ft.
Rowan Drlg. Co. No. 2 Walden, C NE NW sec. 15-22-37. Drk.
Skelly Oil Co. No. 2-B Harrison, C NW NW sec. 9-23-37. Drk.
Skelly Oil Co. No. 3 G. W. Sims, C NW NE sec. 9-23-37. Rigging up machine.
Skelly Oil Co. No. 1-B Harrison, C NE NW sec. 9-23-37. Drlg. 2,529 ft.
Skelly Oil Co. No. 1 Baker, C NW NW sec. 26-22-37. Loc.
Gulf Oil Corp. No. 1 Sticher, C SE SW sec. 4-22-37. Drk.

## NORTHWEST NEW MEXICO

**Bernalillo County**

Norins Realty Co., Inc., No. 2 North Albuquerque, NE SE NW sec. 19-11n-4e. Drlg. below 3,400 ft.; occasional shows carbon dioxide gas.

### San Juan County

The Continental Oil Co. No. 61 Tribal, C south half SE section 35-30n-19w, at the northern edge of the Rattlesnake pool, which was reported a completion last week at 779 feet, was deepened to 824 feet and ran into water. It was plugged back to 804 feet, but was not commercial and was abandoned.

Anna Oil Corp. No. 6 Govt., SW NE NE sec. 33-30n-11w. Drlg. 620 ft.
Jack Amenda No. 4 Hart, NW NE SW sec. 25-30n-12w. Drlg. 1,785 ft.

**Socorro County**

R. Allen Brown, Tr., No. 1 Belen Ld. Gr., SE NW sec. 16-2n-1e. Spd. to 65 ft. and S.D. to R.U.R.

**Torrance County**

Chief O. & G. Co. No. 1 Pace, SE sec. 12-6n-7e. Drlg. hd. gr. sh. 685 ft.; set 8¼-in.

**Valencia County**

C. A. Grober et al No. 1 Fuqua, NE NE sec. 19-5n-3e. Drlg. L. 625 ft.; S.O.&G. 610 ft.

## COLORADO

### Archuleta County

The joint test of the William E. Hughes Estate and the Continental Oil Co. in their No. 1 Burns, at an undesignated location on Gramps No. 2 structure, southeast of the Gramps No. 1 pool and north of the New Mexico line, is drilling below 800 feet.

**Bent County**

Indian Terr. Ill. Oil Co. and Olson Drlg. Co. No. 1 Arbes, C Lot 2, sec. 2-21s-48w. Rig timbers on ground.

**Boulder County**

Boulder Prod. & Dev. Co. No. 1 Harlow Est., SE NE sec. 36-2n-71w. T.D. 719 ft.; rmg. to run pipe to bttm.

**Kiowa County**

Morgan & Flynn et al No. 1 Hostetter, C NW SE sec. 6-20s-46w. Drlg. W.W. at 350 ft. and M.I. rotary equip.

**Larimer County**

Great West O. & G. Corp. No. 1 Haworth, C SW SE sec. 16-4n-69w. Rigged and ready to spud.

### Mesa County

The Midwest Drilling & Development Co. test in the old DeBeque field is equipped with an 84-foot Emsco steel derrick, standard cable tool rig, fishing tools and equipment to go ahead with least delay. B. H. Scott, who drilled the Continental test to the Dakota several years ago, is superintendent. The company has large acreage extending several miles out from the well. If commercial production is not found at the 2,100-foot horizon, well will be carried down through the Dakotas to test the Morrison and Sundance.

Midwest Drlg. & Dev. Co. No. 1 Callahan, NE NW SE sec. 30-8s-97w. Spdg.

### Moffat County

The Mountain Fuel Supply Co. No. 1 Donnell, on the Powder Wash structure, tested at 5,245-5,326 feet in basal Wasatch and showed a nominal quantity of gas, salt water and scums of oil and is coring ahead. Location is a mile to the northwest of same company's No. 1 Allen which made 285 bbls. in six hours at 5,014-32 feet. No. 1 Donnell apparently is around 300 feet lower on the structure.

Universal Consol. Oil Co. and Italo Pet. Corp. No. 1 Wanner-Govt., C SE NE sec. 36-12n-98w. R.U.R.
Morapas Pet. Co. No. 1 Coles, SW SW SE sec. 1-3n-92w. Rng. pipe at 1,300 ft.
Mountain Fuel Supply Co. No. 1 Donnell, C SE NE sec. 31-12n-97w. Cg. 5,336 ft.
Anderson-Kerr Drlg. Co. et al No. 1 Denise, C SE SE sec. 19-9n-99w. S.D. 2,500 ft.; W.O. rotary tools.
Anderson-Kerr Drlg. Co. No. 1 Marrs, C SE NE sec. 17-11n-100w. Bldg. rig and M.I.M.
Texas Co. No. 4 Iles Inv. Co., Lot 7, sec. 23-9n-92w, Iles field. Drlg. gray sh. 1,973 ft.

**Montezuma County**

McElmo Oil Co. No. 1 West, NE NW NW sec. 31-36n-17w. T.D. 3,960 ft.; standard rig comp.; pulling 4½-in. to U.R. 6⅝-in. to bttm.

**Morgan County**

Swisher et al No. 1 Lunt, SE cor. sec. 3-4n-60w. T.D. 1,718 ft.; shot with 19 qts.; exploded prematurely; C.O. to shoot again.

**Park County**

South Park Oil Co. No. 1 Lemar, NE NE SE sec. 34-11s-75w. Drlg. 4,670 ft. in sh. with little L. and Bentonite; increase in O.S.

### Rio Blanco County

The location for the joint test of the Texas Co. and the California Co. on the Wilson Creek dome was changed to the SW SE NW section 35-3n-94w, following a seismograph survey by John H. Wilson's Colorado Geophysical Corp. This puts it about a mile to the southeast of the two former tests by the Texas Co. and a subsidiary of the Standard of California company. One of these wells went to the Dakota at 4,826 feet and the other went deeper in that formation to 5,912 feet. Present test will go to the Sundance which has never been drilled on the structure.

Texas Co. and California Co. No. 1 Unit, SW SE NW sec. 35-3n-94w. R.U.R.

**LaPlata County**

Nick Spatter No. 1 Bryce, SE SW SW sec. 31-33n-9w. T.D. 150 ft.; U.R. 12½-in. to S.O.W. at 42 and 102 ft.

## WYOMING

**Albany County**

Murphy Oil Co. No. 7 Holst, NE NE SE sec. 13-17n-77w. T.D. 3,797 ft.; stdg. cmtd.
Hal Blakeman No. 1 Chapple, C NE NW sec. 33-21n-67w. T.D. 1,681 ft.; installing heavier equip.
Murphy Oil Co. No. 1 Holst-Woolf, NW NW NW sec. 19-17n-76w. T.D. 4,067 ft.; tstg. Dakota through perforated 7-in.
Murphy Oil Co. No. 4 Wilson, NW NW SW sec. 18-17n-76w. Drlg. sh. 1,746 ft.

### Big Horn County

The important wildcat of the Woods-Callahan Oil Co., Ltd., on the Paintrock structure is under way and expects to begin coring at 1,900 feet. It is intended as a test to the base of the Madison at 3,100 feet, but if commercial production is not encountered at that horizon it probably will be carried to the granite. The structure, which has an estimated closure of 1,500 feet, is held under government permits by Ray Holloman, consulting geologist, and Dr. F. J. Evans, of Denver. C. E. Bivens, of Denver, has a one-fourth interest. It is being drilled with rotary equipment moved in from California. The structure was mapped by the late C. T. Lupton, Roy Holloman and Max W. Ball.

The Garland field, which is unitized for the proven area on the top of the structure, is expected to become an increasingly important producer during the year. The Ohio Oil Co. owns 54 per cent of the unitized area and the Utah Southern Oil Co. 46 per cent. There is considerable acreage outside of the unit, including holdings of the Kinney-Coastal Oil Co., which are expected to come into production. At present there are

four wells in the unit and a fifth is nearing completion with nearly 100 feet of saturated Madison lime already penetrated.

The Ohio Oil Co. is preparing to construct upon the Burlington Railroad near the field a fuel oil and liquid asphalt plant of 2,500 bbls. capacity for processing oil exclusively from the Garland dome. Plant will be completed in about 90 days. The Illinois Pipe Line Co. has purchased the William Mayer farm between Lovell and Cowley and has started the erection of one 55,000-bbl. and one 85,000-bbl. tank and the fuel refinery for the Ohio company. Loading racks will be constructed to accommodate 26 tankcars at a time. Trucks also may be used. The Garland production will be connected with the fuel plant with an 8-inch 6-mile line. The fuel refinery will take off "tops" but will not produce a commercial grade of gasoline for the present.

The Kinney-Coastal Oil Co. No. 3 Government, across the line in Park County, which is being deepened from the Tensleep to test the Madison lime, is now drilling in the Amsden formation. It had gas and some oil in the Tensleep and looks like an important extension of the Madison production.

Big Horn Petroleum Trust No. 1 Parker, C SW SW sec. 23-49n-89w. Drlg. 1,296 ft.
Yale Pet. Corp. No. 1 Stock-Jones, SE cor. Lot 52-56n-97w. Drlg. 3,084 ft.; top r.b. 2,958 ft.
Ohio Oil Co. No. 2 Byron-Baker, SW NW sec. 23-56n-97w. Drlg. sn. 1,901 ft.
Ohio Oil Co. No. 1 Pryde, C SW SE sec. 24-56n-97w. Drlg. 3,387 ft.
Ohio Oil Co. No. 1 Smith, NE cor. Lot 61, sec. 33-56n-97w. T.D. 4,094 ft.; cmtd. 7-in. at 4,000 ft.; cd. nearly 100 ft. of sat. Madison L.
Woods-Callahan Oil Co., Ltd., and Wyoming O. & R. Co. No. 1 Evans, NE NE NW sec. 12-44n-91w. Drlg. 1,200 ft.

### Campbell County

G. J. Sherin et al No. 1 Rodes, NE SE SW sec. 24-49n-74w. Drlg. 500 ft.

## Carbon County

The Ohio Oil Co. is moving in for a test for gas to the Shannon sand at around 1,500 feet on the Bunker Hill dome in its No. 1 Wyoming Oil & Gas Co. This is the same location at which the Prairie Oil & Gas Co. drilled a deep test in 1931 to the top of the Sundance at 6,791 feet and found that horizon dry. The 9⅝-inch pipe was set on top of the Dakota at 6,147 feet. When hole was unloaded gas broke out from behind the 9-inch. The hole was plugged back to test the Frontier at 4,891-5,130 feet, but it showed only a little gas and oil and hole was abandoned. It is now believed that the gas was in the Shannon sand.

The Ohio Oil Co. and California Co. No. 4 Cronberg-Union Pacific, C SW SW section 25-21n-79w, Big Medicine Bow, is shut down at 5,446 feet where it tested 5,000,000 feet of gas per day with a rock pressure of 700 pounds in the upper Sundance at 5,412-46 feet. The hole was plugged back to that horizon after finding water in the lower Sundance at 5,544-5,617 feet. The well is an offset to producers on the west, south and southwest. The upper Sundance was hard and tight. Rig has been temporarily moved to No. 2 Kyle to recement the bottom of the hole where water broke through the old plug. As soon as this work is finished rig will be moved back and No. 4 Cronberg-Union Pacific will be shot in an effort to bring in the oil.

Ohio Oil Co. No. 1 Wyo. O. & G. Co., C SE SW sec. 29-27n-89w. M.I.M. for test to Shannon sd. on Bunker Hill dome; (first report).
Producers Oil Co. No. 1, CNL sec. 14-20s-88w. Drlg. 194 ft.
Ohio Oil Co.-California Co. No. 5 Cronberg-U. P., C NW NW sec. 25-21-79w. Cmtd. 12½-in. at 487 ft.; W.O.C.
Ohio Oil Co. No. 1 Union Pacific, C NW NW sec. 20-21n-80w. Ready to spd.
Ohio Oil Co.-California Co. No. 3-A Kyle, C SW NE sec. 26-21n-79w. Drlg. 857 ft.
Medicine Bow Oil Co. No. 1 Hintze-Govt., C NE SE sec. 18-22n-78w. T.D. 2,347 ft.; P.B. to second Sundance at 2,140-80 ft.; shot with 40 qts.; tstg.
Ohio Oil Co.-California Co. No. 4 Union Pacific, C SW SW sec. 25-21n-79w. S.D. 5,446 ft.
Ohio Oil Co.-Medicine Bow Oil Co. No. 1 U. P.-Wister, C NW SW sec. 17-22n-78w. T.D. 976 ft.; 11⅝-in. at 140 ft.; W.O.C.; top Frontier 545 ft.
Ohio Oil Co. No. 8 Dixon, SE NE SE sec. 34-20n-78w. Cg. 5,069 ft. for second break in Tensleep; wtr. in soft Tensleep sd. at 4,990 ft.

## Converse County

The Wyoming Southern Oil Co. No. 1 Jennie Evert, NW NW SW section 26-32n-69w, Shawnee district, which last week was reported an oil discovery in sand at 557-60 feet, with oil standing 270 feet in the hole, is preparing for a pumping test. The oil, as shown by a test at the White Eagle refinery at Casper, is of paraffin base, 24.8 gravity on the Baume scale. It showed a gasoline content of 6.9 per cent; kerosene, 8.4 per cent; nonviscous neutral, 15.2 per cent; wax distillate, 30.4 per cent; residuum, 40.4 per cent. It is rated as good lubricating stock. Robert G. Taylor, a veteran oil man and president of the Wyoming Southern Oil Co., has been active for several years in promoting operations in the Shawnee district. His company already has two gas wells at shallow depths and the Chadron-Osage Oil Co. is drilling a deep test.

Elbe Oil Ld. & Dev. Co. No. 1 Benham, NW NE sec. 5-31-70w. M.I.M.; (first report).
Tom Carney No. 1 Beaver, SE SE SW sec. 28-35n-68w. M.I.M.
Chadron-Osage Oil Co. No. 1 State, SW cor. sec. 16-32n-69w. Drlg. 3,600 ft.

## Fremont County

The Sinclair-Wyoming Oil Co. has resumed operations in its No. 2-C Muskrat on the Muskrat dome. It shut down last winter at 7,293 feet on account of bad roads, cold weather and a fishing job. It had 3,000 feet of oil in the hole from the Embar. Bailer has been recovered and hole was deepened to 7,313 feet when it shut down to acidize.

Sinclair-Wyoming Oil Co. No. 2-C Muskrat, NE SW SW sec. 1-33n-92w. S.D. 7,313 ft. to acd.
H. Kenyon Burch No. 1 Enos, CEL NE NE sec. 28-3n-1w. S.D.O. 970 ft.; no shows.
Ben Stewart No. 1 Darnell, NE SE sec. 26-3n-1w. Drlg. 115 ft.

### Johnson County

Carter Oil Co. No. 3 Rider, C NW SE sec. 17-48n-82w. Drlg. Thermopolis sh. 4,431 ft.

### Lincoln County

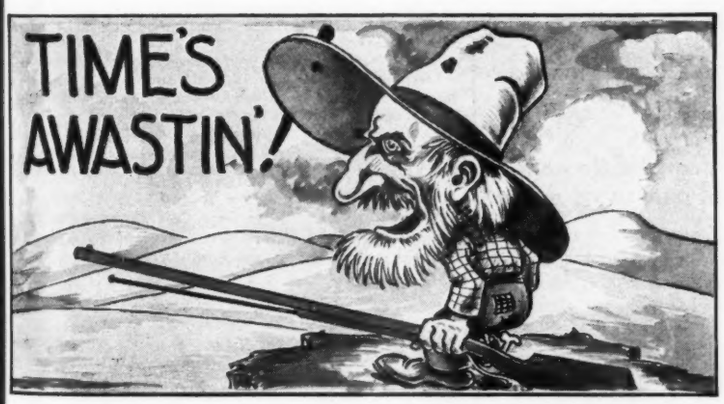
H. M. Eller et al No. 4 Govt., SE NW SW sec. 32-19n-116w. T.D. 401 ft.; will test S.O. in lenticular sd. at 397-401 ft.
Place Oil Co. No. 1 Davis, SE SE SE sec. 9-26n-11w. T.D. 1,000 ft.; U.R. 10-in. to bttm.

### Natrona County

Stanolind O. & G. Co. No. 1 T.P., C NW SE sec. 26-40n-79w. Drlg. 2,725 ft.
Wyalta Oil Co. No. 4 Govt., NW NW sec. 5-29n-81w. Cmtd. 6⅝-in. on top Sundance at 1,082 ft.; rng. 2-in. tbg. to test at 1,030-72 ft.
Wyalta Oil Co. No. 5 Govt., SW SW sec. 30-30n-81w. Tstg. at 1,021 ft.
Wyalta Oil Co. No. 6 Govt., NE SE NW sec. 5-29n-81w. Cmtd. 10-in. at 704 ft.; Dakota at 565-664 ft.

### Niobrara County

Ohio Oil Co. No. 2 Taylor-O.P.C-32, NW NW SW sec. 3-35n-65w. Drlg. 2,020 ft.
Ohio Oil Co. No. 2 Leo O.P.C., NE NE SE sec. 35-36n-65w. R.U.R.


*if your rig's not equipped with*

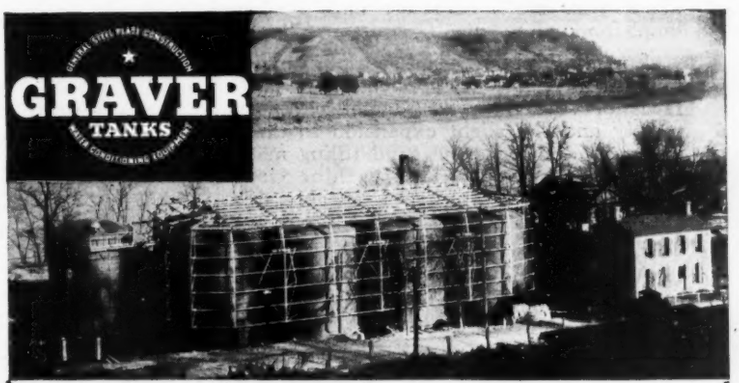
**UNIBOLT COUPLINGS**

2000-lb. test UNIBOLT for 6", 8" and 10" pipe. Available with blanking plug for compounding pumps and making dead-end lines.

If you're using multiple bolt connections, you can't expect the boys to rig up and tear down as fast as they could with UNIBOLT Couplings. A single bolt (two bolts on the "big inch" type), which is under initial stress only, draws the tapered inter-locking shelves together and seals high pressures or high temperatures quickly, safely, perfectly.

You're a'wastin' time if you're not using UNIBOLTS.

THORNHILL CRAVER CO.
Houston Texas




**Modernize - it pays**

Prepare for expansion—look to the future. Check your present equipment. Bring it up to date. Let us work with you on designing, fabricating or erecting any kind of tanks or steel plate work—

Field Equipment
Refinery Installations
Service Stations and Accessories
Tanks, standard sizes or built to specifications
Metal Structures of all shapes
Piping, Fittings, etc.

*Send for Literature Today*

GRAVER TANK & MFG. CO., INC.
75 Years of Dependable Service
New York, N.Y. East Chicago, Ind. Chicago, Ill. Catasauqua, Pa.

# BRIGHT SPOT

## Right Where You Want It

### That's Why Oil Men Prefer ECOLITE 50S

Here is a safe, easy to handle, electric lantern that is just what pipemen, gaugers and other oil men need. It throws a strong, bright shaft of light, is safe in presence of inflammable gases, and is recommended by Underwriters' Laboratories. Used by most all leading Oil Companies.

*Available at Supply Stores*

**ECONOMY ELECTRIC LANTERN CO., 325 W. Huron St. Chicago, Ill.**



## GASKETS OF ANY SIZE—always available if you have a supply of SMOOTH-ON NO. 1

WITHOUT any gasket at all, clean smooth-faced flanges coated with Smooth-On No. 1 will assemble into a tight joint, or a gasket cut from cardboard, manila paper or wire gauge and coated with Smooth-On No. 1 just before installing, can be used with perfect results under all ordinary conditions. If greater gasket thickness is needed, several layers of these materials similarly treated will do the trick. Try this and in an emergency you will never again worry about your stock of ready-made gaskets being incomplete.

Smooth-On No. 1 used as a pure metallic joint filler for easy application to flange faces or screw threads, metallizes completely and the slight expansion in doing so forces and locks the solid filling material into every void. The resulting virtually solid metallic seal is proof against thin hot oil, steam, water, etc., and holds in any metal.

A joint made with Smooth-On No. 1 prevents or stops leakage completely and is permanently proof against shock, vibration, high pressure and extreme temperature change —and this everlasting protection against fluid loss and pressure drop is the easiest, quickest and cheapest you can buy.

Mail the coupon for a free copy of the Smooth-On Engineers Handbook, and buy Smooth-On No. 1 in 1 or 5-lb. can or 25 or 100-lb. keg from your supply house.

SMOOTH-ON MFG. CO., Dept. 66,
570 Communipaw Ave., Jersey City, N. J.
Please send the Protractor and the SMOOTH-ON HANDBOOK.

Name _____

Address _____

_____

_____

7-1

*Do it with* **SMOOTH-ON**


Ohio Oil Co. No. 1 Leo-O.P.C.-7, NW NW SE sec. 35-36n-65w. T.D. 1,850 ft.; cmtd. new string 12½-in. at 306 ft. in old hole; W.O.C.
Ohio Oil Co. No. 10 Lamb-Acct. 2, C NE SE sec. 5-35n-65w. M.I. rotary.
Continental Oil Co. No. 1 Leach, SW NE NE sec. 29-36n-64w. Drlg. 435 ft.
Argo Oil Co. No. 4 Ford, SW NW SE sec. 33-36n-65w. Cmtd. 12½-in. at 188 ft.
A. B. Cobb and Holly Dev. Co. No. 2 Novick, SE SE SW sec. 6-35n-65w. Drlg. 4,860 ft.
Continental Oil Co. No. 4 Schuricht B, NW SW SE sec. 6-35n-65w. T.D. 3,978 ft.; cmtd. 7-in. at 3,877 ft.; prep. to test.
Continental Oil Co. No. 8 Otto Rohlff, SW SW SE sec. 31-36n-65w. Rig; W.O. tools.
Continental Oil Co. No. 10 Tom Bell Cattle, C SW NW sec. 34-36n-65w. Drlg. 4,826 ft.
MacKinnie Oil & Drlg. Co. No. 2 Thompson, NW NW NE sec. 7-35n-65w. S.D. 3,990 ft.
J. M. Huber Corp. No. 1 Lamb, SE SE SW sec. 27-36n-65w. S.D. 2,725 ft.

**Park County**

Resolute Oil Co. No. 1 Northern Pacific, C NE NW sec. 21-57n-101w. Loc.
Kinney-Coastal Oil Co. No. 3 Govt., SW NW NE sec. 24-56n-97w. Drlg. in Amsden 4,344 ft.
Resolute Oil Co. No. 1 Govt., C NE NE sec. 20-57n-101w. Drlg. 4,000 ft.
Texas Co. No. 4 Sonners, SE cor. sec. 29-51n-100w. R.U.R.
General Pet. Corp. No. 1 Govt., NW NW NW sec. 33-47-100. T.D. 6,076 ft.; P.B. to Tensleep; C.O.

**Platte County**

Dividend O. & R. Co., Inc., No. 1, CSL NW SW sec. 17-24n-66. Resuming at 2,385 ft.

### Sweetwater County

The Mountain Fuel Supply Co. has completed a small gas well in its No. 3 Union Pacific, SE NE section 15-16n-104w, South Baxter Basin field, in the Frontier at 2,246-70 feet. After a shot it made 1,250,000 feet of gas with a rock pressure of 700 pounds. The elevation is 7,160 feet. The sand was hard and tight. This well is located on the east side and approximately on the same structural contour as three gas wells on the southwest completed in the last year or two which marked important extensions of the gas pool in that direction.

It is unofficially reported that as soon as the Ohio Oil Co. completes its No. 1 Donnell, on the Powder Wash structure on the Colorado side, that the rig will be moved to the Cherokee Ridge district for a test of the Wasatach. It is expected that this well will be located on the Nightingale permit which extends across the southern tier of sections in Township 13n, Range 95w. The Ohio has a very large block along this anticline. A number of the major companies now have geologists in that area and several tests are scheduled to be drilled this year.

Mountain Fuel Supply Co. No. 1 Stone, C SW SW sec. 18-19n-103w. Drlg. 3,516 ft.
Mountain Fuel Supply Co. No. 1 Union Pacific, C SE NE sec. 29-15n-104w, S of Baxter Basin. Loc.; (first report).

**Weston County**

Big Indian O. & D. No. 1 George, SW SE NW sec. 26-48n-64w. R.U.; contr. John Brorby.

## MONTANA

**Big Horn County**

Big Horn O. & G. Co. No. 31, CWL SE NW sec. 23-1s-33e. Drlg. 625 ft.
Daniels Pet. Co. No. 1 May, C SE SE sec. 13-1s-33e. Drlg. 3,050 ft.

### Blaine County

Nadeau Brothers have closed a contract with Frank Browne, trustee, for the development of a gas supply for the town of Havre, in Hill County, and have spudded in on fee land for the first well on the Box Elder dome in the NW cor. SE section 33-34n-17e. It will go to around 750 feet. Mr. Browne was awarded a contract last January to supply Havre with gas on a basis of 12 cents per 1,000 feet for commercial consumers and 15 cents for domestic consumers. This contract followed the authorization of a loan from the government for the construction of a municipal gas system in Havre.

Nadeau Bros. No. 1 fee, NW NW SE sec. 33-34n-17e. Drlg. 150 ft.; (first report).

**Carbon County**

R. C. Tarrant No. 1 Heare, CWL NE NW sec. 14-6s-19e. R.U.R.; (first report).
Ohio Oil Co. No. 16 Kirt, C SE SE sec. 4-7s-21e. Drlg. 2,661 ft.

**Carter County**

Tower Oil Trust No. 1, C SW NW sec. 8-9s-61e. Spdg.

**Cascade County**

C. Leonard Smith No. 1-A Smith-Schwingle, NE NE SW sec. 14-22n-2e. Asked for bids from rotary contractors to deepen from 620 ft.

**Fallon County**

Nagasco Corp. No. 1, SE sec. 24-5n-6e. Drlg. 720 ft.

### Glacier County

The Cut Bank field chalked up five completions, all of which are inside wells, but one of which is the best well of the year.

*(Continued on Page 82)*


*Straighten Out... those* CROOKED Holes *with* SPERRY - SUN Well-Surveying Instruments

*Write for literature.*

**SPERRY-SUN WELL SURVEYING CO.**
**1608 Walnut St. Philadelphia, Pa.**
Tulsa, Okla., 425 Petroleum Building
Houston, Texas, 3118 Blodgett Avenue
Long Beach, Calif., 549 East Bixby Road, (3800 Block—Atlantic Ave.)

## Wintertime Weather Means Wintertime Skill

. . . Get it with Coppus Heat Killers — they bring down the temperature to where men can work in normal comfort with normal efficiency.

*Tests show that men lose 90% of their efficiency when the temperature hits 110.* Keep *your* men cool with Coppus Heat Killers — the only ones that *prevent recirculation* of stale air and *direct* the cool air directly onto the job.

**2 TYPES**

VANO shoots a blast of as much as 3,000 cu. ft. a minute at high velocity.

AEROPLANE move as much as 15,000 cu. ft. a minute at moderate velocities.

Both are portable — both can be used for shortening downtime of stills, expelling gases from pits, stirring up air when removing vapor and gases from condenser and cooler boxes, etc. Write for Bulletin 160-4.

# FRESH AIR FOR MEN AND MACHINES

# COPPUS

COPPUS ENGINEERING CORPORATION, 354 Park Ave., Worcester, Mass. *Branches in* oil centers, representatives in principal cities. See listing in Thomas' Register.
In COMPOSITE CATALOGS — Steam Turbines, Air Filters, Blowers, Heat Killers.

# West and North Texas

By L. E. BREDBERG

# LATEST GAINES DISCOVERY WILL CAUSE MUCH DRILLING

FORT WORTH, Tex., June 28.—The third Gaines County discovery, made last week by Amon G. Carter and the Continental Oil Co., in section 48, Block AX, in the northwestern part of the county, will no doubt cause a drilling campaign the like of which has not recently been seen in a new field in West Texas. Leases soon expiring will force part of this drilling, while offsets will bring about the drilling of other wells in the area. There are four tests now going down in that immediate area, within 4 miles of each other, and with one of these, 1 mile southwest of the Carter-Continental discovery, running about the same as that well on top of the anhydrite, first important geological marker in the sector, the probability of it making a producer and consequently an extension well, is high.

Carter-Continental discovery No. 1 A. L. Wasson and others is a natural flowing well of much higher productivity than any of the three wells producing in the two fields to the southeast, in the same county. This discovery, bottomed at 4,959 feet in lime, is on a geophysical structure, on a block assembled by the Continental Oil Co. Amon G. Carter was given a farm-out on part of the block for two tests. Two other tests are also being drilled on expiring leases by the same joint owners. It made 273 bbls. and 295 bbls. respectively in two successive 24-hour periods. Gas was gauged at 4,000,000 feet per day. Gravity of the oil is 34.5 degrees.

It was swabbed in through tubing, and tested on different chokes and lines and through tubing which was run to 4,956 feet. It is still testing, and may be drilled deeper, and acidized or shot before completing. It logged oil and gas showings at various depths below 4,648 feet, with 5½-inch casing cemented later at 4,779 feet.

The Phillips Petroleum Co. has already staked a west offset location on 80 acres in section 53, Block AX, which will force two other offsets if it proves a producer. Another test for the area is that of the Phillips Petroleum Co. and Indian Territory Illuminating Oil Co., a mile northwest of the discovery, in the NE quarter of section 55. If Amerada Petroleum Corp. No. 1 Buckley, NE cor. section 417, Block G, C.C.S.D.&R.G.N.G. Survey, 1 mile southwest of the discovery, proves a producer, will in turn force three offsets, one in section 54, one in section 53 and one in section 381. This test is running only 4 feet lower on top of the anhydrite than the discovery, logging it at 2,070 feet.

The most closely watched test in that part of the county for the next few days will be Continental Oil Co. No. 1 E. H. Jones, in section 22, Block A-7, P.S.L. Survey, about 9 miles west and 3 miles south of the above discovery. It is now down 4,700 feet, nearing the pay horizon found in the Wasson discovery, and showed some sulfur gas at 4,637-38 feet.

## Delaware Showing

The southwestern part of Ward County drew some attention in the past week when a wildcat located about 6 miles west of Pyote started showing for a Delaware sand oil producer when bottomed at 5,085 feet. Oil rose in the hole to at least 2,000 feet, with an estimated 2,000,000 feet of gas also showing. C. H. Mahres, Kenneth Slack and others are drilling this wildcat on the Pat Wilson ranch in section 133, Block 34, H.&T.C. Survey, about 11 miles southeast of two Delaware producers on the Rector-Monroe lands.

This potential producer topped the Delaware lime at 5,036 feet, and the Delaware sand at 5,085 feet, bottom of hole. The well is now shut in, but may be carried deeper or given a shot in top of the pay sand. It is located on the eastern rim of the Delaware Basin, which has been receiving much attention, and in which much leasing and royalty buying has taken place since the Mason pool was opened in the northwestern part of Loving County about three months ago.

## Pecos Showing

The deep wildcat of Humble Oil & Refining Co., on the Gray Lands, in section 94, Block 11, G.H.&S.A. Survey, in the extreme western part of Pecos County, had a good showing in the Delaware this week. It topped the Delaware lime at 5,010 feet and the sand at 5,050-69 feet. The hole filled 200 feet with oil in the Lower Delaware at 5,560 feet, but in drilling to 5,625 feet no more oil showed. Elevation is 3,592 feet. However, this showing might be considered in this wildcat, it is sufficient to make the above described acreage, in Reeves County, more valuable from a potential producing standpoint.

The outpost test of D. J. Finley and A. W. Cheery in the W. D. Johnson lands, in section 24, Block 56, Township 1, T.&P. Survey, 1¾ miles west of the Mason pool in Loving County, is still incomplete although sure of making some kind of a producer after a shot from 3,602-68 feet. It is now cleaning out. Although making a producer, it may also define this Delaware sand field on the western side. It topped the sand at 3,614 feet.

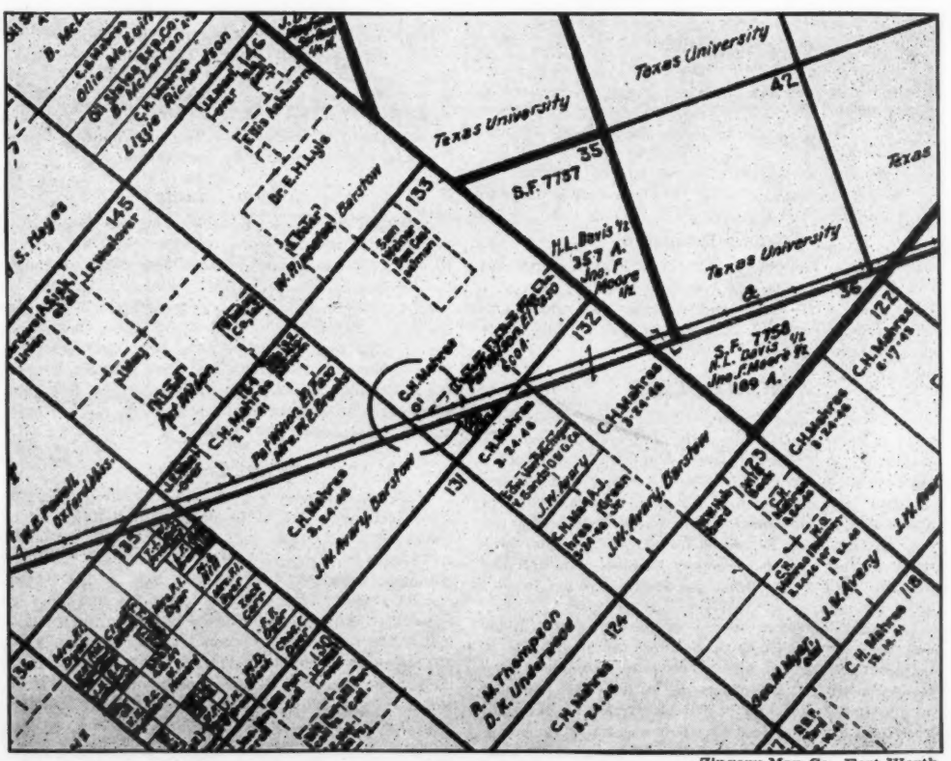
## Much Leasing and Proposed Wildcatting

The Delaware Basin extends into Reeves County, west of Ward County and the southern part of Reeves has been getting a big play for several months, but more especially since the Mason discovery. The blocking and checkerboarding has been in Block 13, H.&G.N. Survey; Block 1, H.&G.N. Survey; Block 51, Township 7, T.&P. Survey; Block 52, T.&P. Survey, and Block 1, H.&T.C. Survey, the play extending into northwestern Pecos County.

Those assembling blocks around Toyah Lake are Barnett Petroleum Co., Shell Petroleum Corp., Atlantic Refining Co., Magnolia Petroleum Co., Felmont Corp., Brown & Wheeler and others. This leasing is being done mostly in Block 51, Township 7, T.&P. Survey. The Barnett company has a block of 10,000 acres just east of Toyah Lake. Continental Oil Co., Stanolind Oil & Gas Co., Phillips Petroleum Co., Ohio Oil Co., Superior Oil Co., Illinois Oil Co. and Tide Water Associated Oil Co. are also leasing in the southern part of the county.

The Penn Oil Co. has a block about 20 miles east of Balmorhead on the southeastern side of the county. Whitehead of Midland has 10 sections in the same area. Argo Royalty Co. has a block in Block 13, H.&G.N. Survey, 15 miles east of Balmorhead, and also one 13 miles northeast of that town, in Block 52. Fifteen sections have been assembled in Block 1, H.&T.C. Survey, 15 miles east of Balmorhead, and one of 10 sections assembled in the south half of Block 1, H.&T.C. Survey, on which a test is to be drilled.

Eight miles east of Balmorhead the Sun Oil Co. has a block of 10 sections, and the Harrison Oil Co. of Dallas a block of eight sections from 8 to 10 miles east of Balmorhead; Gulf Oil Corp. a block of 14 sections around Hoban, about 15 miles south of Pecos City, which block will expire in 1940. Gulf holds from 15 to 18 sections in the southeastern part of the county and the Sun Oil Co. has around 20 sections in the same area. The Texas Pacific Coal & Oil Co. has a big spread of acreage and the Continental Oil Co. has taken 30 half sec-




*C. H. Mahres and others' test which is showing for a Delaware sand oil discovery in the western part of Ward County, about 6 miles west of Pyote. It is bottomed at 5,085 feet with a hole full of oil*

tions in Block 1, H.&T.C. Survey, and in Block 13, H.&G.N. Survey. W. A. Moncrief has taken a spread and the Argo Royalty Co. a spread in the same area. Floyd Scott of Fort Worth holds some 8,000 acres, also taking large acreage in the area for various major companies.

Sid Richardson has taken 12 sections in a block in Block 4, H.&G.N. Survey, 5 to 6 miles west of Pecos City.

West of Balmorhead, along the San Martine fault, a leasing play has also been taking place. The I.T.I.O. company has taken a big spread along the Reeves-Jeff Davis County line. The Sun Oil Co., Humble Oil & Refining Co., Ohio Oil Co., Peerless Oil & Gas Co., Ricker & Dodson and F. Scott have been leasing from 6 to 15 miles west of Balmorhead along the fault.

The acreage recently purchased has been in areas recently seismographed and geologized on the subsurface. Over 100,000 acres have been leased in the county, a large part of which was taken recently. From 10 to 15 wildcat tests are expected to be drilled in the county, some of which are anticipated for the near future.

### Yoakum Test

The Denver Development Co. is preparing to drill a wildcat on the J. A. Whittenburg Estate, in section 831, Block D, J. H. Gibson Survey, in the southwestern part of Yoakum County, and about 6½ miles northwest of the Carter-Continental discovery in Gaines County. At least two other tests are proposed for that part of Yoakum County.

Nine miles west and north of the Bennett pool, in southeastern Yoakum County, Lou Stogner has let contract to Mitchell & Sullivan for the drilling of a 5,500-foot wildcat hole in the northwest quarter of section 606, Block D, John H. Gibson Survey.

A wildcat in another part of the district is W. F. McDermott and others No. 1 Lucas lands, in section 18, Block 29, Township 1n, T.&P. Survey. This location is 5 miles north of the Dodge-Denman pool in Howard County.

### Outpost Test

An interesting test in Winkler County will be that of the Olsen & Jeffers Oil Co. in section 16, Block 26, P.S.L. Survey. This location is 1½ miles north of the old Hendricks field and three-quarters of a mile south of the more recently opened Henderson field in which prolific wells have been completed within the past year. The test is in the vicinity of an old dry hole drilled by the Southern Crude Oil Purchasing Co. (now Stanolind Oil & Gas Co.) to a total depth of 2,900 feet.

### Extension

The O'Brien field in Ward County has been given another half mile extension to the east. Culbertson & Irwin No. 1 Sealy Estate, flowed 50 bbls. of oil the first half hour after swabbing in through tubing at total depth of 2,651 feet. It topped the pay at 2,631 feet, and is making an estimated 2,000,000 feet of gas with the oil, heavier upper gas having been cased off in order to drill deeper.

### Guitar Extension

The E. P. Campbell and John L. Reeves outpost on the S. A. Kelley lands, in Lot 9, G. Martinez Survey, 1 mile north of the Guitar pool in Jones County, marks an extension to that pool. The well gauged 20 bbls. in 24 hours on the pump.

## NORTH TEXAS

A new pay sand was reported found in the Graham area in Young County when the Bennett Petroleum Co. test on the R. V. Tidwell lands, 8 miles west of Graham started flowing 30 bbls. per hour from pay sand logged at 3,377 feet, drilling to 3,383 feet or about 320 feet above the regular sand found in a well 2,000 feet to the east. At 3,250 feet it showed for a 50-bbl. well but was being carried to the deeper pay in quest of better production. This is the third pay member found in that area.

Another 4,000-foot test is preparing to get under way only 300 feet from a hole on the Ball lands in section 2882, T.E.&L. Survey, recently abandoned. The Montague Oil Co. and others are to drill this new test on the Ball lands, and it will be carried as 1-A Ball. The first test was junked when a joint of pipe collapsed. It had a showing of oil and gas at 3,993-4,000 feet.

Five miles north of Collinsville in eastern Grayson County, and about the same distance north of the Collinsville discovery, the Denver Producing & Refining Co. struck salt water at 3,841 feet in the same sand from which the Rapp Drilling Co. and others are producing a small well.

Three miles east of Collinsville, in the same county, Reagan Clark and others have made location for their No. 1 F. M. Robertson, in the W. G. Miller Survey. It is to go to 4,200 feet in quest of production in the Collinsville discovery.

### Deeper Pay

The W. W. McDonald test on the W. T. Waggoner lands, in the Greyback pool, and 3 miles east of the deep production in the old Rock Crossing pool, Wilbarger County, has opened the twelfth pay horizon for the Waggoner Pasture. The well is making 100 bbls. per day from saturated lime logged at 3,625-54 feet, or about 500 feet below where the Phillips Petroleum Co. brought in a deeper pay several months ago. Location is in section 26, Block 4, H.&T.C. Survey.

## WEST TEXAS COMPLETIONS

### Dawson County

E. L. Wilson and others No. 1 Texas Land & Mortgage Co., dry and abandoned 5,050 feet, elevation 3,089 feet.

### Ector County

Atlantic Refining Co. No. 5 Cowden, 4,150-4,245 feet, shot and acidized, 827 bbls. American Maracaibo No. 3-A Scharbauer, 4,181-4,227 feet, shot and acidized. Amon G. Carter No. 3 Johnson, 4,098-4,197 feet, acidized, 487 bbls. W. H. Dunning, Jr., No. 1-A Scharbauer, 4,180-4,224 feet, acidized, 1,422 bbls. Empire Oil & Refining Co. No. 3-C Cummins, 4,180-4,250 feet, acidized, 390 bbls. Gulf Oil Corp. No. 20 Goldsmith, 4,108-90 feet, acidized and shot, 912 bbls. Mabee & Blackstock No. 2 Cummins, 4,160-4,265 feet, acidized, 1,683 bbls. Shasta Oil Co. No. 2 Cummins, 4,100-4,263 feet, shot and acidized, 933 bbls. Shell Petroleum Corp. No. 2-A T. P. Land Trust, 4,105-4,269 feet, acidized, 562 bbls. Texas Pacific Coal & Oil Co. No. 4 Scharbauer, 4,175-4,256 feet, shot and acidized, 3,220 bbls.

### Glasscock County

Continental Oil Co. No. 35-S Settles, 1,243-77 feet, 394 bbls. on pump.

### Howard County

Plymouth Oil Co. No. 13 Kloh, 2,440-2,520 feet, acidized, 1,600 bbls.

### Pecos County

Cardinal Oil Co. No. 1-N Tippett, 1,220-1,264 feet, plugged back to 1,239 feet, 11 bbls. oil, 1 per cent water in 12 hours, acidized. Dobbs Oil Co. No. 1 Toler-University, dry and abandoned, 2,100 feet. A. H. Flaherty & Son No. 1 J. C. Cunningham, dry and abandoned 2,265 feet, elevation 2,514 feet. Ohio Oil Co. No. 38-A Yates, 1,255-1,431 feet, 2,025 bbls. per hour; No. 56-A Yates, 1,303-61 feet, 51 bbls. per hour.

### Upton County

Cardinal Oil Co. No. 1 Starnes-Fowler, 2,269-85 feet, acidized, 710 bbls. on pump. Continental Oil Co. No. 9 Reese, 2,380-2,450 feet, acidized, 939 bbls. on pump; No. 10 Reese, 2,535-2,635 feet, acidized, 715 bbls. on pump. John W. Emch No. 1 Lyon Estate, 2,217-43 feet, acidized, 429 bbls.; No. 1 University, dry and abandoned 3,701 feet, elevation 2,655 feet. Gulf Oil Corp. No. 150 McElroy, 2,640-2,844 feet, shot, 992 bbls. Humble Oil & Refining Co. No. 3-B Ricker, 2,615-66 feet, acidized, 644 bbls. on pump. Peck & Croft No. 1 Harris, dry and abandoned 1,777 bbls.

### Ward County

Amerada Petroleum Corp. No. 5 McDonald, 2,240-2,460 feet, shot, 727 bbls. through three-fourths inch choke. Empire Oil & Refining Co. No. 23 McDonald, 2,230-2,440 feet, shot, 539 bbls. F. H. E. Oil Co. No. 7 Killough, 2,230-2,457 feet, shot, 271 bbls. Gulf Oil Corp. No. 33 Estes, 2,493-2,620 feet, shot, 751 bbls.; No. 34 Estes, 2,473-2,675 feet, shot, 1,479 bbls.; No. 79 Hutchins, 2,613-2,750 feet, shot, 713 bbls.; No. 82 O'Brien, 2,552-2,771 feet, shot, 899 bbls. A. E. Lynch No. 4-A Himmel, 2,276-2,620 feet, shot, 360 bbls. on pump. Reno Oil Co. No. 6 Hartage-Wilson, 2,360-2,458 feet, shot, 968 bbls. Tide Water Associated No. 27 Johnson, 2,530-2,696 feet, plugged back to 2,662 feet, shot, 1,036 bbls.

### Winkler County

Harry Adams and others No. 3-A Walton, 2,982-3,082 feet, shot, 2,365 bbls. Bert Fields and others No. 12 Pure-Clapp, 2,735-3,110 feet, shot, 1,797 bbls.; No. 13 Pure-Clapp, 2,734-3,100 feet, shot, 1,819 bbls. Gulf Oil Corp. No. 9 Clapp, 2,815-3,108 feet, shot, 1,122 bbls.; No. 41 Daugherty, 2,808-3,142 feet, shot, 605 bbls.; No. 45 Daugherty, 2,816-3,020 feet, shot, 2,343 bbls.; No. 46 Daugherty, 2,811-3,150 feet, shot, 959 bbls.; No. 47 Daugherty, 2,811-3,020 feet, shot, 866 bbls. Humble Oil & Refining Co. No. 5-B Colby, 2,735-3,025 feet, shot, 271 bbls.; No. 9 McCutcheon, 2,795-3,020 feet, shot, 510 bbls. Magnolia Petroleum Co. No. 84 Walton, 2,810-3,233 feet, shot, 308 bbls.; No. 85 Walton, 2,715-2,940 feet, shot, 811 bbls. J. C. Maxwell No. 4-B Gartex, 2,760-3,124 feet, shot, 1,353 bbls. Skelly Oil Co. No. 3 Daugherty, 2,785-3,035 feet, shot, 605 bbls. Texas Pacific Coal & Oil Co. No. 4 Clapp, 2,760-3,100 feet, shot, 806 bbls.; No. 1 Thornberry, 2,800-3,065 feet, shot, 1,295 bbls.

## PANHANDLE COMPLETIONS

### Carson County

Empire Oil & Refining Co. No. 3-E Magnolia, 2,970-3,061 feet, shot, 907 bbls. on pump. Texas Co. No. 7 Boney, 2,980-3,055 feet, shot, 514 bbls. on pump.

### Gray County

Danciger Oil & Refining Co. No. 13 Barrett, 3,248-99 feet, acidized and shot, 599 bbls. on pump; No. 14 Barrett, 3,248-3,301 feet, shot and acidized, 555 bbls. on pump. W. C. Jones No. 6 Culler, 3,137-3,311 feet, shot, 999 bbls. on pump. Le Fors Petroleum Co. No. 4 Bull, 2,858-2,951 feet, 966 bbls. Magnolia Petroleum Co. No. 3 Cantrell, 3,065 feet, plugged back to 2,995 feet, 5,900,000 feet gas. Shell Petroleum Corp. No. 3-A Gethings, 2,703-80 feet, plugged back to 2,740 feet, 191 bbls. on pump; No. 6 Haggard, 3,170-3,273 feet, shot, 761 bbls. on pump. Stanolind Oil & Gas Co. No. 5 Kinzer, 3,257-3,310 feet, shot, 680 bbls. on pump.

### Hutchinson County

Axia Oil Co. No. 1 Terry, 2,983-3,042 feet, shot, 407 bbls. on pump. Concha Oil Co. No. 2 Hodges, 2,985-3,085 feet, shot, 543 bbls. on pump. Crosbie, Inc., No. 17 Pitts, 2,992-3,066 feet, shot, 656 bbls. on pump. T. C. Nichols No. 2 Moore, 3,098-3,167 feet, shot, 593 bbls. on pump. Phillips Petroleum Co. No. 2 Green River, 3,001-53 feet, 251 bbls. on pump. S. & M. Oil Co. 6 Moore-Langdon, 3,040-3,106 feet, shot, 437 bbls. on pump. Shell Petroleum Corp. No. 3 Wisdom, 3,150-3,200 feet, shot, 756 bbls. and 82 bbls. water on pump. Texas Co. No. 13 Lewis, 2,900-3,030 feet, shot, 545 bbls. on pump. Texilvania Oil Co. No. 4 Harvey Sisters, 2,970-3,053 feet, shot, 614 bbls. on pump.

## WEST CENTRAL TEXAS COMPLETIONS

### Brown County

Kewanee Oil & Gas Co. No. 29 Roy Hickman, sand 1,290-1,305 feet, 21 bbls.

Charter Oil & Gas Co. No. 1 T. B. Slick Estate, total depth 1,370 feet, dry and abandoned. Donald Kenyon No. 1 B. Stone, total depth 1,250 feet, dry and abandoned.

### Callahan County

Holden & Tyler No. 16 Miller Block, total depth 1,647 feet, 30 bbls. Murray & O'Neal No. 1 E. L. Estes, total depth 2,251 feet, dry and abandoned. R. F. St. John No. 1 Perkins, total depth 1,769 feet, dry and abandoned.

### Eastland County

J. A. Bearman No. 1 Mrs. R. L. Poe, total depth 3,810 feet, dry and abandoned.

Hoffman & Page No. 1 Holcomb, total depth 1,627 feet, dry and abandoned. States Oil Corp. No. 9 Parrack, sand 1,862-77 feet, 7 bbls.

### Jones County

Bridwell & Fikes No. 7 Jennings, 1,921-25 feet, 182 bbls. Danciger Oil & Refining Co. No. 4 Guitar, 1,986-2,007 feet, treated 2,000 gallons acid, 900 bbls. in 15 hours. T. D. Humphrey No. 19 H. Dorsey, 2,215-18 feet, treated 2,000 gallons acid, 365 bbls. Ungren & Frazier No. 10 Dorsey, 2,208-14 feet, treated with 2,000 gallons acid, 714 bbls.

Brown Eagle Oil Co. and Roberts No. 1 W. L. Lewis, northeast edge Hawley, sand 1,968-78 feet, sandy lime 1,978-88 feet, lime 1,988-2,001 feet, 3,000 gallons acid, initial production 741 bbls. flowing in 12 hours. Fain & McGaha No. 1 Lucas, total depth 2,099 feet, dry and abandoned. Guitar Trust Co. No. 2 fee, oil sand 1,972-85 feet, hard lime 1,985-2,001 feet, sandy lime 2,001-04

*(Continued on Page 80)*

*Texas and Louisiana Gulf*

# LAFOURCHE PARISH HAS NEW POOL; HARDIN IS PROMINENT

By F. L. SINGLETON

HOUSTON, Tex., June 28.—The confirmation of a new oil field in Lafourche Parish, Coastal Louisiana, and the assurance of an active drilling campaign in the Hardin area, in Liberty County, Texas, as a result of the completion of a prolific producer 2½ miles southwest of the discovery well, were the featured developments along the Gulf Coast district.

Fohs Oil Co. No. 1 State Long Lake, east of the town of Houma in Lafourche Parish, perforated casing at 9,365-73 feet with 19 holes, and after it had cleaned itself of wash water, flowed on a four-hour gauge at the rate of 400 bbls. of 38.3 gravity oil per day through a 12/64-inch choke with tubing pressure 1,350 pounds and casing pressure 1,400 pounds. Final completion will be delayed however by the well sanding up, and it has been killed to reset screen and recomplete.

The well cored approximately 35 feet of Miocene sand to a total depth of 9,406 feet. It is located on a geophysical prospect of several thousand acres centering in section 65-17s-19e. Protection acreage is held by Shell Petroleum Corp., Gulf Oil Corp. and Humble Oil & Refining Co. Tentative location for No. 2 State is 1,320 feet north and east of the discovery well.

### Hardin's Importance Increased

Along the Texas Coast, Jack Frazier opened the way for an active drilling campaign in the Harden area, Liberty County by the completion of No. 1 Mrs. B. F. Hanchey, located 2½ miles southwest of the discovery well in the H. B. Johnston Survey. On an initial flow it made 26½ bbls. of 38.9 gravity oil per hour through a quarter-inch choke, with tubing pressure and casing pressure equalized at 1,000 pounds. A shake-out test showed 1 per cent basic sediment and water. The well was completed June 24 from a screen setting made at 7,600-13 feet, the total depth.

Production is from the Upper Saline Bayou formation, the same horizon in which the discovery well to the northeast was completed by the same operator in 1935 from a depth of approximately 7,800 feet. No. 1 Hanchey is checking considerably higher than the discovery and has the appearance of opening a major field which will no doubt be followed by a drilling campaign. Three active locations have already been made and application to drill several more have been filed with the railroad commission. This is the first discovery in several years along the Gulf Coast in which the original test was not located in the center of a large block which has resulted in a slow development in the majority of new fields. New locations in which material is being moved are: Jack Frazier and others No. 1 John Roberts, midway between the discovery and the extension well; Woodley Petroleum Co. No. 1 W. McMurtay, a southeast offset in the H. B. Johnston Survey, and Shell Petroleum Corp. No. 1 Cessna to the northeast. Protection acreage is held by Gulf Oil Corp., Pan American Production Co., Halliburton Oil Producing Co. and L. W. Wickes.

### Record Distillate Producer

Magnolia Petroleum Co. No. 1 J. H. Phelan completed last week as the discovery well of the Cheek Prospect, 1½ miles southwest of the Amelia field, Jefferson County, flowed 392 bbls. of 61.8 distillate in 22 hours through a quarter-inch choke with tubing pressure 2,700 pounds and casing pressure 2,775 pounds. This is the largest distillate producer ever completed on the Gulf Coast, and assures the immediate drilling of other tests. It is estmated that the well is flowing 4,000,000 feet of gas daily. Production is from the Lower Frio sand at 8,440-60 feet.

Two producers were added to the Lockridge field, Brazoria County, Gulf Oil Corp. No. 2 Gibson, offsetting Shell Petroleum Corp. No. 1 Ramsey in the J. W. Hall Survey flowed 398 bbls. per day through a quarter-inch choke from a screen setting at 6,206-6,378 feet, total depth. Same company's No. 2 Reiss flowed 440 bbls. per day through a quarter-inch choke from sand at 6,355-70 feet, total depth. No. 4-A Wilkes and Smith cored oil sand to 6,375 feet and 7-inch casing has been cemented at 6,346 feet.

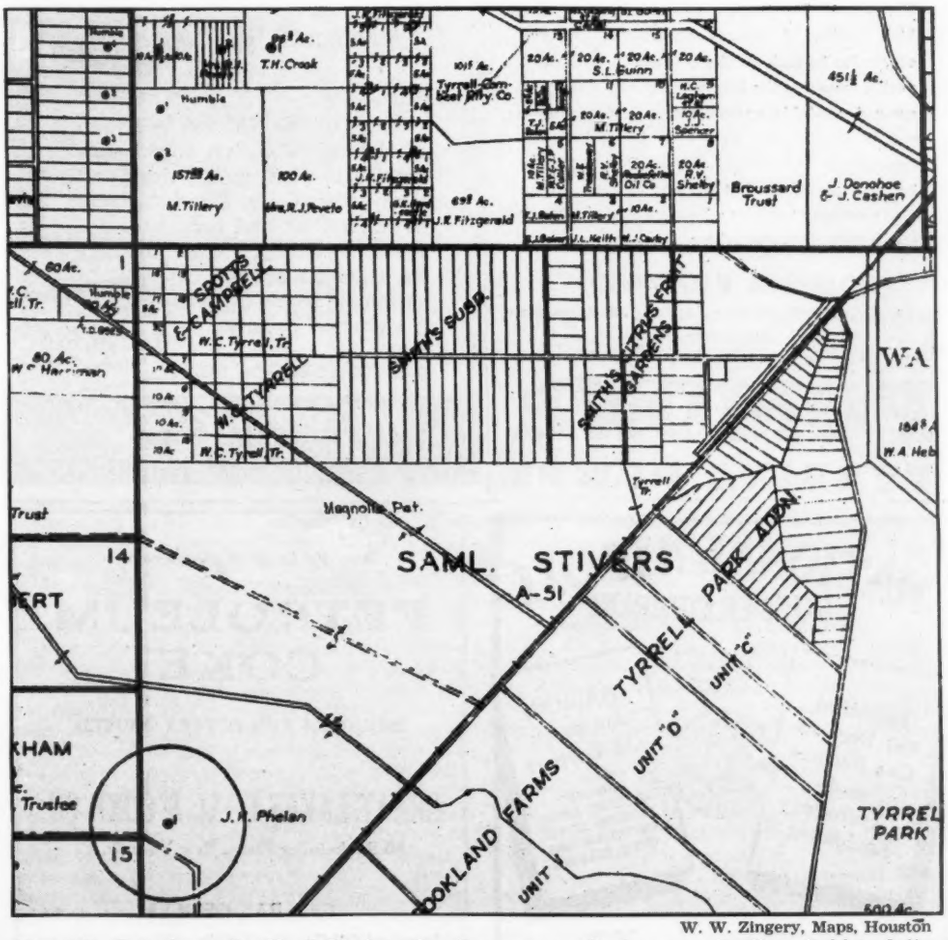
In the same county but located in the Old Ocean district, Harrison & Abercrombie No. 1 Bernard River Land & Development Co., the discovery well, has been completed for an initial production of 288 bbls. per day through a quarter-inch choke with tubing pressure 2,700 pounds. Gravity of the oil tested 51.2 degrees. Production is through perforations at 9,827-35 feet. The well was originally completed in the 8,600-foot sand and was deepened after it began to make salt water. Same company's No. 4 Bernard is bottomed at 10,408 feet and a protection string of 7-inch casing has been cemented at 10,400 feet.

Humble Oil & Refining Co.'s attempt to extend production 1½ miles east of the Anahuac field, Chambers County, failed with the abandonment of No. 1 Garth, which was quit in salt water sand at 7,477 feet. Location is in secton 68, T.&N.O. Survey. To the northwest in the Turtle Bay field, Stanolind Oil & Gas Co. No. 1 Earl R. Davis flowed 72 bbls. of pipe line oil in three hours through a quarter-inch choke with tubing pressure 700 pounds. Production is from a screen setting at 6,601-25 feet, the total depth. To the southwest at Cotton Lake, Salt Dome Oil Corp. No. 2-A Lawrence, topped oil sand at 6,513 feet and cored to a total depth of 6,518 feet. Seven-inch casing was cemented at 6,512 feet.

In the Way area of the Dickinson field, Galveston County, Atlantic Refining Co. No. 1 Lippnan in the W. G. Banks Survey is bottomed in broken sand showing oil and gas at 8,115 feet. The sand section was topped at 8,083 feet and casing will be run for a production test. Bennet-Kenyon Oil Co. No. 2 Way has been abandoned after deepening to 8,891 feet. It was originally completed in the 8,100-foot sand, but began to show salt water. To the south in the Gillock area, three completions were recorded. Humble Oil & Refining Co. No. 8-B Stewart flowed 144 bbls. per day at a plugged-back depth of 8,372 feet, while Bennet-Kenyon No. 1-A G.H.&E. R.R. flowed 32 bbls. the first hour through perforations at 8,769-96 feet. To the east, Pan American Production Co. No. 3 Craig has been completed for a dry gasser through perforations at 8,010-24 feet.

### Silsbee Extended

The producing limits of the Silsbee field, Hardin County, were enlarged by the completion of two tests. East of production about 1,800 feet, Republic Producton Co. and Houston Oil Co. No. 16 Brooks has been completed for a gas well in the 6,800-foot sand after a




W. W. Zingery, Maps, Houston

*Magnolia Petroleum Co. No. 1 Phelan, the discovery well of a new distillate field in Jefferson County, 1½ miles southwest of the Amelia field*

GOTT WATER COOLER
Made in 3, 5, 8, 10, and 20 gallon sizes.

# Gotkoo!

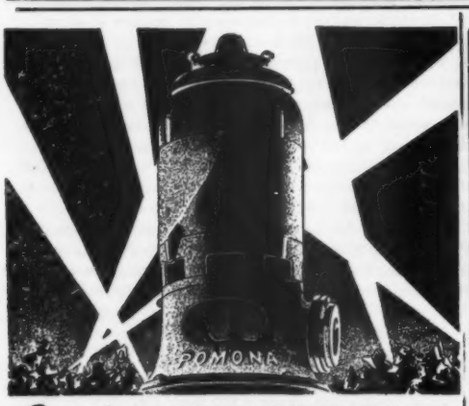
## WATER CANS & COOLERS

GOTT Water Coolers are the convenient way to keep drinking water handy to the worker, protect it from impurities. Their exclusive construction keeps water cool for long periods. Snug fitting large removable top, handy non-leaking push button faucet. GOTT Water Cans for handy field use. Your Supply Store has them, get one today!

GOTT WATER CAN
Made in 1½, 3, 5, and 10 gallon sizes.

**H. P. GOTT MFG. CO.**
WINFIELD, KANSAS

KEEP PURE DRINKING WATER ALWAYS HANDY




## America IS RETURNING TO QUALITY

Not only in America, but all over the world, the high quality of Pomona Pumps has produced economies in cash for the owners. In addition to saving money in the long run, Pomona quality insures dependable operation even under adverse conditions—always when water is needed—continuously or intermittently. Ultimately it is only by keeping quality up that you can cut costs down. This reasoning explains why more Pomona Pumps are bought than any others.

**POMONA PUMP CO.**
Manufacturing Plants: Pomona, Calif. - St. Louis, Mo.
Sales Offices:
New York - Chicago - Los Angeles - San Francisco

# POMONA
## TURBINE PUMPS

# LUFKIN

## "Challenge" STEEL TAPES

THE POPULAR TAPE FOR ALL GENERAL MEASURING

Highest grade 3/8" or 1/2" wide steel line. Will give dependable service in construction work and many other fields. Stands up well in continuous and hard use. Genuine leather case. Folding flush handle opened by push pin. Measurements guaranteed accurate.

See Listings in Composite Catalog of Oil Field and Refinery Equipment.

SEND FOR CATALOG NO. 12

**THE LUFKIN RULE CO.**
SAGINAW, MICHIGAN
106-110 Lafayette St., New York City

# NATIONAL AIROIL BURNER COMPANY

ESTABLISHED 1912 INCORPORATED 1917

Manufacturers
Installation
Engineers
Sales - Service

Industrial Oil Burners Gas Burners and Furnace Equipment

NAIROIL Automatic Oil Burners for HOMES APARTMENT HOUSES CHURCHES, STORES FACTORY BUILDINGS OFFICE BUILDINGS

Offices and Salesrooms
1325-27 Girard Avenue
Philadelphia, Pa.

Factory
L St. & Sedgley Avenue

*World's Largest Marketers of*

# PETROLEUM COKE

INQUIRIES AND OFFERS INVITED

## GREAT LAKES COAL & COKE CO.

30 Rockefeller Plaza, New York, N. Y.

GENERAL OFFICES
Standard Oil Co. (Ind.) Bldg., Chicago, Illinois


Schlumberger survey was made of the 6,900-foot sand. Offsetting the company's No. 1 Ellery, Humble Oil & Refining Co. No. 1 Kirby topped salt water sand at 6,980 feet and cored the sand to a total depth of 6,989 feet. Five and one-half inch casing was cemented at 6,986 feet and the well has been completed for a producer through perforations in upper sand from 6,851-65 feet. No gauge has been reported.

In the Bay City field, Matagorda County, Hamman Exploration Co. No. 2 Cleveland perforated casing at 8,154-60 feet, and flowed 250 bbls. of pipe line oil per day through a quarter-inch choke. Gravity of the oil tested 41 degrees. It was originally completed at 8,154-64 feet, but began to make salt water.

In the southwest extension area of the Segno field, Polk County, Humble Oil & Refining Co. No. 4-B Kirby flowed 21 bbls. per hour through a quarter-inch choke with tubing pressure 725 pounds and casing pressure 850 pounds. Sand was topped at 5,327 feet and cored to 5,335 feet. This is the second well completed in this area, and is an east offset to No. 3-B Kirby. The rig is being moved over for No. 5-B Kirby. To the northeast, J. K. Dorrance No. 2 Sarah Wing southeast of No. 1 in the I.&G.N. Survey, topped salt water sand at 5,295 feet and cored to 5,301 feet, where it was plugged back to 5,204 feet. Seven-inch casing was cemented at 5,181 feet. Gulf Oil Corp. No. 1 Ragan, a deep test which has failed to encounter the upper or lower Conroe sand, has been plugged back from 6,013 feet to 5,460 feet in an attempt to straighten the hole.

### Important Queen City Horizon

In the Spurger field, Tyler County, Republic Production Co. and Houston Oil Co. have completed No. 3 Hurd but no gauge is available. The well is 933 feet due west of the discovery well and is producing from a screen setting at 7,630-40 feet, which is in the Queen City horizon bottomed at approximately the same depth as the discovery well. The rig will be moved over for No. 4 Hurd, located 933 feet north of No. 3. The completion of this test definitely proves the importance of the Queen City horizon and much attention will be attracted to a new location made to the southeast in Newton County which will no doubt be drilled to the same horizon unless production is found at a shallower depth. The location will be drilled jointly by the Houston Oil Co. and the Republic Production Co. and will be located on the Sabine Tram Co. lease in section 35, H.&T.C. Survey, in what is known as the Call area.

Additional development has been assured the Magnet area, southern Wharton County, by the completion of Texas Crusader Oil Co. No. 1 Sweet, which flowed 158 bbls. of pipe line oil per day through a three-sixteenths inch choke with tubing pressure 350 pounds. Atlantic Refining Co. has set a cement retainer at 5,525 feet and is preparing to make a second production test of No. 1-B H. C. Cockburn after it showed gas with some oil when tested through perforations at 5,533-37 feet. Locations have been made by Atlantic Refining Co. for No. 2-B H. C. Cockburn and Texas Crusader for No. 1-B Evelyn Sweet in Lot 4, Block 84.

Additional development for the old West Columbia field, Brazoria County, has been assured by the completion of Sterling Oil & Refining Co. and Texas Co. No. 1 J. G. Phillips which has opened a new sand for the north flank of the dome. The well is flowing into the pits at the estimated rate of 400 bbls. of fluid per day of which 20 per cent is wash water and the balance 28 gravity oil. It is cleaning through a three-eighths inch choke. The test is located in the George Kennille Survey and is producing from the Marginulina-Frio contact with the oil sand topped at 5,284 feet and bottomed at 5,298 feet. Seven-inch casing was cemented at 5,278 feet.

### Revival in Hull

Another old field which is receiving a revival of drilling is Hull, in Liberty County. On the southwest flank of the dome, Houston Production Co. No. 1 Hannah fee located in the J. Devore Survey flowed 857 bbls. per day through a quarter-inch choke with tubing pressure 1,050 pounds and casing pressure 1,450 pounds. This opens a new sand for this particular area as the well is situated near shallow wells that have been pumping for some time. Derrick is up for No. 2 Hannah fee, 1,200 feet north of No. 1 and Hamill and Smith have derrick up for No. 3 Barrow.

In the Louisiana Gulf Coast, Union Sulphur Co. has successfully recompleted No. 1 J. O. Hebert for the third time and is flowing at the daily rate of 650 bbls. through a quarter-inch choke with 1,235 pounds of casing pres-

*(Continued on Page 98)*

# Kansas Developments

By
DAL DALRYMPLE

# BUSY BEMIS POOL EXTENDED; RUSSELL WILDCAT FINDS OIL

Discovery of new producing areas and extensions of older pools continues to be order of the day in Kansas, hot weather seemingly having little effect on field operations.

The Bemis pool in Ellis County was extended during the past week, with two good producers completed and several other wells near completion. L. H. Wentz and others No. 1 Bemis, NE NE NW section 28-11-17w, and Twin Drilling Co. No. 1 Madden Estate, SE SE NE section 29-11-17w, gave the pool southwest extensions. The first well was completed and the second well was near completion. The Twin company's well may be the connecting link between the Bemis field and the Marshall pool, 2 miles to the southwest. It was bottomed at 3,548 feet and swabbed 10 bbls. of oil an hour before being acidized for pumping test. The Deep Rock Oil Corp. completed one large producer on its Baumer lease at the south end of Bemis and its No. 6 Baumer, NE NE NW section 27-11-17w, was near completion. It had Siliceous lime at 3,484-93 feet, total depth, and 3,000 feet of oil rose in the hole in one and one-half hours. It pumped 2,875 bbls. of oil in 22 hours and 45 minutes but official potential test had not been made.

A Russell County wildcat may open a new producing area or prove a west extension to the Gurney pool. It is Alva Billings and others No. 1 Boxberger (Holl), NE NE SE section 21-14-14w. Top of Kansas City lime was 3,008 feet, total depth 3,055 feet. It was estimated good for 75 bbls. of oil a day naturally, but probably will be acidized.

The new pool opener in Barber County, Pryor & Lockhart and others No. 1 Gant, C SE section 7-31-13w, northwest of Medicine Lodge, total depth 4,438 feet in Viola lime, was estimated good for 2,500 bbls. of oil daily or better after acid treatment. It swabbed and flowed 110 bbls. of 41 gravity oil in 24 hours naturally before treatment.

Work has been resumed at Arthur Sory No. 1 Byrd, SW SW SE section 32-21-11, Lyon County wildcat, after being shut down for pipe for a short time. The shut down was responsible for a report it had been abandoned. Ten-inch casing was set at 1,048 feet and it was drilling ahead.

Stanolind Oil & Gas Co. has started work at No. 1 Zugg, NE NE NW section 35-16-13w, south offset to the company's No. 1 Stueder, SE SE SW section 26-16-13w, new pool opener in Barton County.

### Russell County

Eleven of 12 wells completed in Russell County were oil producers.

R. H. Shields and others No. 1 Letsch, NE NE SE section 27-14-13w, found Siliceous lime at 3,095 feet, had a hole full of water at 3,114-17 feet, total depth, plugged back to 2,935 feet, was acidized and pumped 1,293 bbls. of oil in 24 hours, down three hours.

Texas Co. No. 1 Brandenburg, NW cor. section 20-14-14w, topped Kansas City lime at 2,998 feet, was bottomed at 3,031 feet and, after acid treatment, swabbed 360 bbls. of oil in 12 hours, making potential of 624 bbls.

Empire Oil & Refining Co. No. 3 Strecker, NE NW NE section 35-14-14w, made potential of 413 bbls. of oil from sand at 3,166-82 feet, total depth. Same company's No. 1 Strecker B, NE cor. section 36-14-14w, had Kansas City lime at 2,866 feet, total depth 2,971 feet. It was acidized with 4,000 gallons and pumped 692 bbls. of oil and 200 bbls. of water in 19 hours. After being retreated with 5,000 gallons of acid, it made potential of 351 bbls. of oil, cutting 6 per cent.

Texas Co. No. 3 Dumler, NW NE SE section 1-14-15w, found Topeka lime at 2,770 feet, had pay at 2,955-62 feet, total depth, and made potential of 2,478 bbls. of oil in 21 hours.

Wolf Creek Oil Co. No. 2 Mills, NE SE NW section 10-14-15w, topped sand at 3,281 feet and had Granite Wash at 3,284-87 feet, total depth. After plugging back to 3,284 feet, it pumped 15 bbls. of oil daily.

Empire Oil & Refining Co. No. 15 Crawford, NE SE SW section 2-14-15w, was dry and abandoned in Quartzite at 3,413-23 feet, total depth.

Central Petroleum Co. No. 6 Foster B, NW SE NE section 3-14-15w, made potential of 2,812 bbls. of oil from Gorham sand at 3,306-08 feet, total depth.

W. I. Southern, Inc., No. 6 Boomhower A, NW SW NE section 30-15-13w, Trapp field, was acidized and made potential of 2,251 bbls. of oil from Siliceous lime at 3,273-76 feet, total depth.

Gulf Oil Corp. No. 3 Hoffman, NE SE SW section 31-15-13w, topped Siliceous lime at 3,283 feet, total depth 3,293 feet, was acidized, pumped 930 bbls. of oil in 12 hours and made potential of 1,860 bbls.

Phillips Petroleum Co. No. 10 Hoffman, NE SW SE section 31-15-13w, found Siliceous lime at 3,328 feet and was bottomed at 3,335 feet. It pumped 1,021 bbls. of oil in 12 hours, was acidized and pumped 1,172 bbls. in 10 hours, making potential of 2,809 bbls.

Coralena Oil Co. No. 1 Deines, NE cor. section 36-15-14w, made potential of 2,680 bbls. of oil from Siliceous lime found at 3,279 feet, total depth 3,282 feet.

Near completions included Phillips Petroleum Co. No. 1 Carroll, SE cor. section 18-14-14w. It topped Kansas City lime at 2,985 feet, was bottomed at 3,020 feet and flowed 28 bbls. of oil an hour for three hours. National Refining Co. No. 1 Reinhardt, NE cor. section 19-14-14w, had pay at 3,005-18 feet, total depth 3,023 feet, and flowed at the rate of 60 bbls. of oil an hour. Skelly Oil Co. No. 3 Ehrlich, SE SW NE section 25-14-15w, topped Siliceous lime at 3,201 feet, total depth 3,205 feet, was acidized and pumped 896 bbls. of oil in 19 hours, with 3 per cent water. Derby Oil Co. and Reserve Development Co. No. 5 Michaelis, SW SW NW section 31-15-13w, had Siliceous lime at 3,254-74 feet, total depth, and swabbed 61 bbls. of oil in five hours. Phillips Petroleum Co. No. 11 Hoffman, NW SE SE section 31-15-13w, pumped 828 bbls. of oil in 12 hours from Siliceous lime at 3,335 feet, total depth 3,342 feet. Gulf Oil Corp. No. 1 Mollie, SE cor. section 25-15-14w, topped Siliceous lime at 3,295 feet, total depth 3,300 feet, and swabbed at the rate of 45 bbls. of oil an hour.

### Rice County

Six oil wells and two failures were completed in Rice County.

L. E. Douglass Oil & Gas Co. No. 5 Theede, NE NW SW section 9-21-7w, Hauschild-Saxman-Theede district, had Conglomerate at 3,358 feet, total depth 3,374 feet, pumped 559 bbls. of oil in six hours and made potential of 2,140 bbls.

Reserve Development Co. No. 6 Patton, SW NE NW section 16-21-7w, flowed 470 bbls. of oil in six hours and made potential of 1,781 bbls. from Conglomerate found at 3,374 feet, total depth 3,380 feet.

J. H. Tatlock No. 8 J. Berscheit A, SE SE SW section 6-20-10w, Silica district, made potential of 1,792 bbls. of oil from Siliceous lime at 3,295 feet, total depth 3,298 feet.

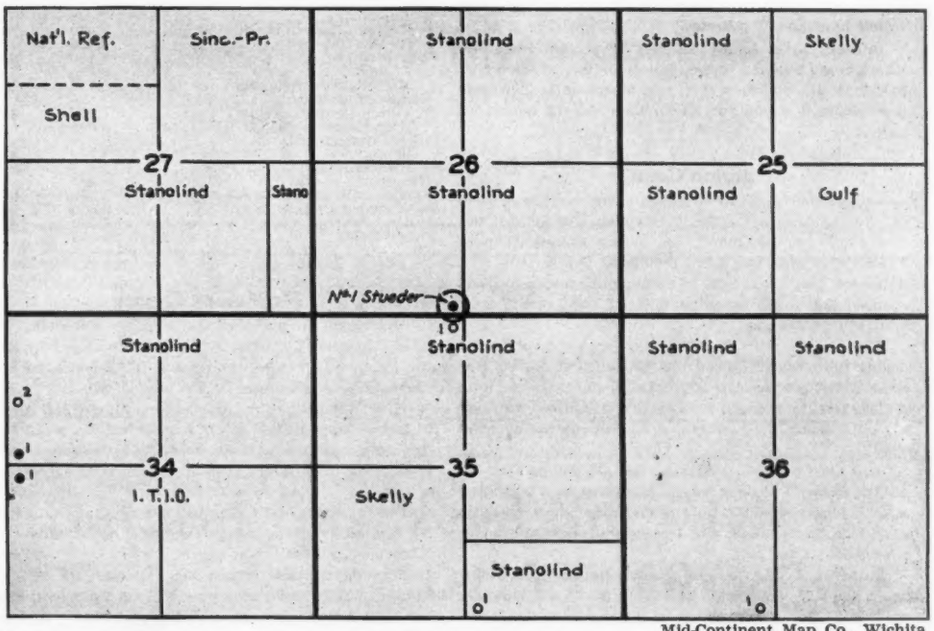
Texas Co. No. 8 Kleile, NW SE SW section 34-19-10w, had Siliceous lime at 3,315 feet, total depth 3,327 feet, and made potential of 1,132 bbls. of oil.

Republic Natural Gas Co. No. 4 Wendell, NE NE SE section 32-19-10w, had Siliceous lime at 3,275-78 feet, total depth, and made potential of 2,059 bbls. of oil.

Skelly Oil Co. No. 4 Dittmers, SE SE SW section 28-19-10w, found Siliceous lime at 3,263-75 feet, total depth, was treated with acid, pumped 352 bbls. of oil in six hours, and made potential of 1,258 bbls.

Empire Oil & Refining Co. No. 1 Prochaska, NW NW SE section 31-18-7w, had Siliceous lime at 3,239-49 feet, total depth, and was dry and abandoned when water was indicated on drill stem test.

Union Oil & Refining Co. and others No. 1 Baker, SW SW NE section 33-20-6w, wildcat, topped Chat at 3,393 feet, had a showing of oil at 3,432 feet, had Viola lime at 3,660 feet, Simpson 3,765 feet, and was dry and abandoned in Siliceous lime at 3,840-55 feet, total depth.




Mid-Continent Map Co., Wichita

*New Barton County area opened in section 26-16-13w by Stanolind Oil & Gas Co. Work has started on the south offset*

Gulf Oil Corp. No. 8 Knop, NE NE NW section 33-19-10w, found Siliceous lime at 3,262 feet, was bottomed at 3,282 feet and pumped 273 bbls. of oil in six hours, but had not been completed. Stanolind Oil & Gas Co. No. 1 Hathaway, NW NW SW section 33-19-10w, found Siliceous lime at 3,274 feet, total depth 3,310 feet, and swabbed at the rate of 30 bbls. of oil an hour after shooting and acidizing.

### Ellis County

Two more big wells were added to the growing list of oil producers in the Bemis field, Ellis County.

Deep Rock Oil Corp. No. 5 Baumer, NW SW NW section 27-11-17w, found Siliceous lime at 3,486 feet, was bottomed at 3,494 feet and made potential of 3,034 bbls. of oil.

L. H. Wentz, Inc., No. 1 Bemis, NE NE NW section 28-11-17w, had Siliceous lime at 3,422-26 feet, total depth, and pumped 1,619 bbls. of oil in 22 hours.

Lario Oil & Gas Co. No. 2 Walter C, SW SW SE section 2-12-18w, topped Siliceous lime at 3,635 feet, total depth 3,643 feet, and made potential of 1,424 bbls. of oil.

Texas Co. No. 1 Ruder, NE NE SW section 17-15-18w, topped Kansas City lime at 3,265 feet, Siliceous lime 3,569 feet, total depth 3,588 feet, plugged back to 3,295 feet and acidized, pumped 35 bbls. of oil in 24 hours with 17 bbls. of water an hour and pumped off. Later, it pumped 6 bbls. of oil in 16 hours, with much water, and was abandoned.

Lebow and others No. 1 Richmond, SW SW SE section 15-11-17w, was an Ellis County well nearing completion. It topped Siliceous lime at 3,440 feet, had a good showing of oil at 3,441 feet, and oil rose 500 feet in the hole in one hour and 30 minutes. Seven-inch pipe was set at 3,440 feet. Deep Rock Oil Corp. No. 6 Baumer, NE NE NW section 27-11-17w, had Siliceous lime at 3,484-93 feet, total depth, and 3,000 feet of oil rose in the hole in one hour and 30 minutes.

Billings No. 1 Smith, SE SE NW section 14-12-16w, Ellis County wildcat, topped Siliceous lime at 3,356 feet, had first oil at 3,360-64 feet, was bottomed at 3,369 feet and swabbed 6 bbls. of oil an hour for 12 hours, off bottom.

### Barton County

One of the biggest wells completed recently in Kansas was Skelly Oil Co. No. 9 Bloomer, SW SE NE section 36-17-11w, Bloomer field, Barton County. Top of Kansas City lime was 2,925 feet; total depth 3,070 feet. It flowed 154 bbls. of oil in eight hours naturally, was acidized and made potential of 4,565 bbls. of oil, with 4,090,000 feet of gas.

Three other wells in Barton County were completed during the week. Empire Oil & Refining Co. No. 2 Wittig, NW NE NW section 16-16-13w, found Siliceous lime at 3,387 feet, total depth 3,392 feet, was acidized, pumped 662 bbls. of oil in 15 hours and made potential of 1,050 bbls.

Gulf Oil Corp. No. 1 Sessler, NE NE SW section 24-20-11w, topped Siliceous lime at 3,243 feet, was bottomed at 3,253 feet, flowed 270 bbls. of oil in six hours, pumped 1,680 bbls. in 24 hours, was treated with acid and made potential of 2,216 bbls.

Lario Oil & Gas Co. and Atlantic Refining Co. No. 6 Peter, SW NW NW section 24-20-11w, pumped 2,376 bbls. of oil in 24 hours from Siliceous lime at 3,259 feet, total depth 3,270 feet.

Texas Co. No. 1 Henning, NE NE NW section 22-19-11w, had pay at 3,105-15 feet, set 6-inch casing at 3,097 feet, flowed 108 bbls. of oil in six hours, was acidized with 4,000 gallons and was waiting on results. Magnolia Petroleum Co. No. 8 Roetzel, SW NW SE section 24-20-11w, had Siliceous lime at 3,242-44 feet, total depth, and swabbed 252 bbls. of oil in 10 hours but was not completed.

### Reno County

The largest of five wells completed in the Burrton district, Reno County, was National Petroleum Corp. No. 5 Tucker, SE SW NE section 19-24-4w. It flowed 1,393 bbls. of oil in 24 hours from Chat topped at 3,324 feet, total depth 3,388 feet. It was acidized.

Wilcox Oil & Gas Co. No. 3 Montford A, SW NW SW section 12-23-4w, topped Chat at 3,270 feet, total depth 3,418 feet, was acidized and flowed 453 bbls. of oil in 24 hours.

Sinclair Prairie Oil Co. No. 2 Showalter, NE NE SE section 8-24-4w, flowed 300 bbls. of oil and some water in 24 hours after acid treatment. Top of Chat was 3,308 feet, total depth 3,382 feet.

Empire Oil & Refining Co. No. 5 Scheuchzer, SW SE NW section 20-24-4w, was bottomed at 3,391 feet and pumped 464 bbls. of oil and 480 bbls. of water in 24 hours after acid treatment.

James Davis No. 1 Van Sickle, NW cor. section 21-24-4w, topped Chat at 3,333 feet, was bottomed at 3,363 feet, plugged back to 3,359 feet, acidized and made potential of 137 bbls. of oil, with some water.

Sinclair Prairie Oil Co. No. 3 Kaufman, NW SW SE section 18-24-4w, found Chat at 3,331 feet, total depth 3,389 feet, pumped 366 bbls. of oil and 30 bbls. of water, acidized and was waiting on results. Carter Oil Co. No. 5 Hogan, NW NE SW section 19-24-4w, had pay at 3,368-73 feet and 3,387-90 feet, total depth, pumped 30 bbls. of oil and 15 bbls. of water in three hours, acidized and was waiting on results. National Petroleum Corp. No. 7 Tucker, SW SW NE section 19-24-4w, was waiting on results after acidizing Chat at 3,328-87 feet, total depth.

### Estimated Daily Production

Estimated daily production of Kansas for the week ending June 26, and for the preceding week, was as follows:

| | Barrels | |
|---|---|---|
| | June 26 | June 19 |
| Oxford City | 1,725 | 1,775 |
| Burrton | 14,475 | 14,250 |
| Ritz-Canton | 5,625 | 5,575 |
| Graber | 3,525 | 2,675 |
| Hollow-Nikkel | 2,875 | 2,900 |
| Lerado | 2,650 | 2,875 |
| Voshell | 2,150 | 2,200 |
| Wellington | 2,650 | 2,875 |
| Ellsworth County: | | |
| Lorraine | 5,000 | 4,475 |
| Other pools | 1,360 | 1,275 |
| Rice-Barton counties: | | |
| Bloomer | 5,375 | 4,850 |
| Chase | 9,650 | 7,075 |
| Geneseo | 2,200 | 2,225 |
| Raymond | 1,675 | 2,225 |
| Silica | 20,100 | 22,650 |
| Keesling | 1,750 | 1,900 |
| Hauschild | 2,575 | 2,825 |
| Miscellaneous Rice | 9,800 | 10,115 |
| Miscellaneous Barton | 4,890 | 4,310 |
| Russell County: | | |
| Fairport | 2,330 | 2,295 |
| Gorham-East Gorham | 2,470 | 2,370 |
| Russell | 2,425 | 2,310 |
| Sullivan | 8,130 | 7,850 |
| Trapp | 8,715 | 7,250 |
| Miscellaneous Russell | 6,790 | 6,220 |
| Sedgwick County: | | |
| Valley Center | 1,250 | 1,230 |
| Miscellaneous | 3,095 | 3,090 |
| Ellis County: | | |
| Bemis | 4,700 | 4,950 |
| Miscellaneous | 3,625 | 2,530 |
| Kingman County | 630 | 585 |
| Stafford County | 3,560 | 3,025 |
| Greenwood County | 9,650 | 9,700 |
| Butler County | 16,050 | 16,000 |
| Other fields | 25,555 | 25,895 |
| Total Kansas | 199,025 | 194,350 |

### McPherson County

Dickey Oil Co. and Gulf Oil Corp. No. 9 Goering, NW NE SE section 17-21-1w, McPherson County, had Hunton lime at 3,319 feet, total depth 3,332 feet, was acidized and made potential of 525 bbls. of oil.

H. & M. Drilling Co. No. 3 Sellers, SE SW NE section 31-19-1w, topped Chat at 2,924 feet, had pay at 2,974-79 feet, total depth, was treated with acid, and flowed 122 bbls. of oil in 24 hours with an estimated 6,000,000 feet of gas.

Derby Oil Co. and L. H. Wentz No. 8 Goering, SE SE NE section 17-21-1w, pumped 88 bbls. of oil daily after a shot at 3,360 feet, total depth.

Tom Palmer and others No. 1 Regier, SE NE NW section 13-21-1w, wildcat, topped Chat at 2,978 feet, Misener sand 3,411½ feet, Hunton lime 3,412 feet, and was dry and abandoned at 3,438 feet, total depth.

### Stafford County

Atlantic Refining Co. and Phillips Petroleum Co. No. 1 Pound, NE NW NE section 27-24-13w, found Siliceous lime at 4,111 feet, was bottomed at 4,121 feet, plugged back to 4,119 feet, and pumped 790 bbls. of oil and 4 per cent water. It was the only Stafford County completion of the week.

### Decatur County

C. L. Bruce and others No. 1 Newbold, C NE SW section 34-2s-28w, was abandoned when rig fell down.

### Barber County

Colonial Oil Co. No. 1 Blunk Estate, NE cor. section 13-34-14w, Barber County wildcat, was an abandoned location.

### Sumner County

Texas Co. No. 1 Harper, NE SW SE section 9-30-3w, Sumner County wildcat, swabbed 8 bbls. of oil after acidizing at plugged back depth of 3,898 feet, but was abandoned. It topped Lansing lime at 2,890 feet, Stalnaker sand 3,018 feet, Kansas City lime 3,208 feet, Chat 3,817 feet, lime 3,821 feet, Viola lime 4,265 feet, Simpson zone 4,264 feet, Siliceous lime 4,369 feet, total depth 4,390 feet, where 2,000 feet of water rose in the hole.

### Cowley County

Tulsa Oil Co. and others No. 1 Dillon, NW NW NE section 28-34-3e, Cowley County wildcat, topped Layton sand at 2,623 feet, had Chat at 3,375-96 feet, total depth, and was dry and abandoned.

### Butler County

Richmond Drilling Co. No. 3 Rose, SW SE NW section 17-27-6e, Butler County, had Bartlesville sand at 2,695 feet, Mississippi lime 2,734 feet, was bottomed at 2,755 feet, pumped 19 bbls. of oil in 24 hours, was shot and pumped 35 bbls. of oil and 3 bbls. of water daily.

### Elk County

G. T. Berry No. 1 Zimmerman, SW NE SE section 15-30-10, Elk County wildcat, found Mississippi lime at 2,001 feet, total depth 2,031 feet, pumped 1 bbl. of oil and 10 bbls. of water daily and was abandoned.

Diller Oil & Gas Co. No. 1 Miller, township 31-10e, topped Peru sand at 1,565 feet, Oswego lime 1,685 feet, Mississippi lime 2,001 feet, Siliceous lime 2,289 feet, had a hole full of water at 2,302 feet, total depth, and was dry and abandoned.

### Greenwood County

Lykes and others No. 1-A Beauchat, SW SW NE section 5-24-12, Greenwood County, was acidized and pumped 15 bbls. of oil daily from Mississippi lime topped at 1,780 feet, total depth 1,814 feet.

### Chautauqua County

Barbara Oil Co. No. 2 Gorham, SW SE NW section 23-32-10, Chautauqua County, had Mississippi lime at 1,888 feet, total depth 1,929 feet, was acidized and pumped 2 bbls. of oil and 30 bbls. of water daily.

Sagamore Oil & Gas Co. No. 11-A Willson, NE SW NE section 14-33-12, produced 250,000 feet of gas and was completed after plugging back to 1,148 feet from 1,950 feet, total depth. Top of Mississippi lime was 1,605 feet; Siliceous lime 1,915 feet.

Buffington & Cohen No. 1-A Hayes, SE NE SE section 10-33-13, wildcat, topped Mississippi lime at 1,525 feet, had Siliceous lime at 1,795-1,808 feet, total depth, and was dry and abandoned.

### Seward County

United Production Co. No. 1 Young, C SW section 5-31-34w, Seward County, plugged back to 2,647 feet when water intruded at 2,875 feet, total depth, was shot and produced 2,000,000 feet of gas.

### Stevens County

Panhandle Eastern Pipe Line Co. No. 1-13 Young, C NE section 13-32-39w, Hugoton field, Stevens County, was bottomed at 2,800 feet and produced 9,500,000 feet of gas.

Kuhn Brothers and others No. 1 Armstrong, C SE section 16-34-39w, produced 9,500,000 feet of gas and was completed at 2,760 feet, total depth.

## West Texas Fields

*(Continued from Page 76)*

feet, total depth, 3,000 gallons acid, initial production 840 bbls. in 10 hours. T. D. Humphrey No. 1 Moore, total depth 2,205 feet, dry and abandoned. Moutray Oil Co. and others No. 1 Nugent, total depth 2,643 feet, dry and abandoned. Ungren & Frazier No. 16 Dorsey C, sandy lime 2,136-47 feet, initial production 504 bbls.

### Shackelford County

Danciger Oil & Refining Co. No. 1 Davis & Walker, 1,554-64 feet, 38 bbls. R. F. Gilman No. 19 Jeter, 864-96 feet, 19 bbls. R. H. Guinn No. 1 M. L. Childress, total depth 507 feet, dry and abandoned. J. L. Hart and others No. 1 T. W. Lee, total depth 435 feet, dry and abandoned. Howsley & Lee No. 8 Reynolds, 887-96 feet, 5 bbls. S. B. Owens and others No. 131 Morris, 1,576-86 feet, 100 bbls.

J. L. Hart and others No. 2 T. W. Lee, total depth 310 feet, dry and abandoned. S. B. Owens and others No. 12 Morris, sand 1,583-96 feet, initial production 60 bbls. Sedwick & Hammond No. 1 Dawson & Conway, total depth 1,795 feet, dry and abandoned.

### Stephens County

Arco Oil & Gas Co. No. 1 Atkins, total depth 3,302 feet, dry and abandoned.

Felmont Corp. No. 1 Blackwell & Phillips Heirs, total depth 1,805 feet, dry and abandoned.

## NORTH TEXAS COMPLETIONS

### Archer County

C. E. Beavers No. 2 G. D. Prideaux, 778-89 feet, 10 bbls. L. T. Burns No. 1 Pastusek A, 1,520 feet, dry. Butler & Latson No. 1 Carpenter, 1,059-60 feet, 20 bbls. C. E. Grininger No. 1 Prideaux, 1,033 feet, dry. F. L. Pilkenton No. 2 E. N. Birdwell, 637 feet, dry. Producers Development Co. No. 11 Neimeyer, 1,623 feet, dry. Underwood Oil Co. No. 16 R. Campbell B, 979-984 feet, 11 bbls.

### Clay County

L. T. Burns No. 1 H. Sanzenbacher, 3,914 feet, dry.

### Cooke County

John Greathouse and others No. 2 Ed Wilson, 1,965 feet, dry. A. D. Robinson No. 8 Otto A, 1,276-89 feet, 55 bbls. Schermerhorn Oil Co. No. 7 Mary Kessler, 1,257-68 feet, 37 bbls.

### Jack County

Algord Oil Co. No. 1 S. M. Jones, 3,145-3,246 feet, 510 bbls. Cato Oil Co. No. 7 Raley A, 3,002-40 feet, 275 bbls. W. R. Dearing & Son No. 2 S. M. Jones, 3,218-32 feet, 265 bbls. S. B. Edwards No. 1 J. S. Henderson, 3,174 feet, dry. Mar-Tex Oil Co. No. 4 Jones, 3,086-3,153 feet, 99 bbls.; No. 7 Jones B, 3,020-71 feet, 360 bbls. Alex McCutcheon No. 1 R. R. Clayton, 2,996 feet, dry. Oil Finance Corp. No. 1 Sam Cullers, 800 feet, dry. Stewart & Eagan No. 1 Bryson, 3,105 feet, dry.

### Montague County

O. V. Beck No. 2 Cora L. Davenport, 1,970-2,051 feet, 102 bbls. Benton & Holmes No. 4 W. A. Reed A, 2,320-28 feet, 90 bbls. Continental & Seitz No. 2 E. W. Johns, 2,135-2,328 feet, 44 bbls. M. Holmes and others No. 1 Monroe, 2,513 feet, dry. Sinclair Prairie and others No. 2 L. Keck, 1,725-46 feet, 25 bbls.; No. 3 L. Keck, 1,800 feet, dry.

### Wichita County

L. T. Burns No. 22 Waggoner, 1,898 feet, dry. Deep Oil Development Co. No. 10 Munger A, 3,667-3,862 feet, estimated 2,000 bbls. flowing. King Oil Co. No. 2 S. B. Burnett and others 875-82 feet, 55 bbls. Panhandle Refining Co. No. 13 Ramming, 1,666-1,714 feet, 66 bbls. Perkins & Cullum No. 32 L. T. Burnett, 1,605 feet, dry. Pet Production Co. No. 74 Allen & Kemp, 3,675-3,867 feet, 538 bbls.

### Wilbarger County

King Oil Co. No. 3 Waggoner P, 2,157 feet, dry; No. 1 Waggoner V, 2,196 feet, dry.

### Young County

S. S. Alexander No. 3 Mrs. L. D. Clark, 831-41½ feet, 117 bbls. Bohner & Gilmore No. 8 Prideaux A, 574-75 feet, 10 bbls. F.H.E. Oil Co. No. 10 Finch C, 700 feet, dry. Hawkins & Glover No. 1 Rushing, 821-31 feet, 73 bbls. B. B. Mercer, trustee, No. 2 N. L. Hardy, 656 feet, dry. Piper & Wilson No. 3 S. L. Scott, 749-53 feet, 14 bbls. Pitzer & West No. 2 LaPrade, 3,817-3,907 feet, 900 bbls.

## Oklahoma Fields

*(Continued from Page 69)*

SW NW section 20-7-8, an old well, plugged back from 3,165 feet to 2,900 feet, shot and cleaning out; Empire Oil & Refining Co. No. 4 Born, SW SW NE NW section 20-7-8, building rig; F. P. Lanahan No. 1 Haskett, NE NW SW section 15-7-8, machine.

In Garvin County: Skelly Oil Co. No. 1 Hinkle, NE NW SE section 33-1n-3w, pits; same company's No. 2 Hinkle, NW NW SW section 32-1n-3w, location; Wrightsman Oil Co. No. 5 Gates, NW NW SW section 33-1n-3w, building derrick.

In Cotton County, Lawton Oil Corp. No. 1 Chambers, SW cor. section 35-1s-10w, was moving in material to deepen an old gas well.

In Tillman County, Tom Walker No. 1 Bowman, SW SW NW section 10-4s-17w, wildcat, set 15½-in. casing at 20 feet and was waiting on cement.

In Jackson County, E. L. Lippert and others No. 1 Miller, NW cor. section 4-2n-18w, wildcat, was a machine.

In Creek County, Reliance Oil Co. No. 16 Berryhill, NE NW NW SE section 9-17-12, was drilling at 400 feet.

In Okmulgee County, W. O. Schock No. 2 Field, CSL NE NW section 16-14-11, had spudded.


*Capital Markets Recognize The Medium-Sized Oil Business*

Large corporations always have had access to new funds. Only within the last two years have the capital markets fully recognized the investment possibilities inherent in many medium-sized corporations. This is true of oil companies as well as other types of industry.

Oil company executives or owners who are considering public offering of securities for any of the reasons which are actuating others are invited to communicate with us. Such reasons include plans for expansion and intelligent anticipation of inheritance taxes, to mention only two.

We have recently successfully completed the financing of the Superior Oil Corporation, and are interested in discussing capital financing for other comparable companies.

Our record of success, plus the distributing facilities we have developed, is of distinct value to corporation owners and executives contemplating financing.

*Inquiry invited*

**Eugene J. Hynes & Co., Inc.**

*INVESTMENT BANKERS*

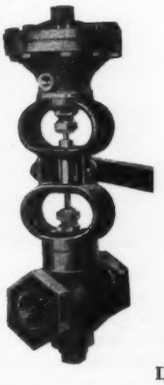
61 Broadway New York, N. Y.



***HAVE YOU RENEWED YOUR JOURNAL SUBSCRIPTION?***



**Natural Gas Need Not Give You DUST TROUBLE**



CF

DIFFERENTIAL REGULATOR

Where natural gas is introduced in lines previously carrying manufactured gas, dust may give trouble. However, by fogging the gas with a suitable proportion of oil in atomized form, this condition can be successfully dealt with. A diaphragm valve is required, of either the throttling or the differential type according to pressure and other circumstances. As to the proper C-F regulator for any such case, correspondence is invited. Catalog on request.

Install a Chaplin-Fulton Regulator

**The Chaplin-Fulton Manufacturing Co.**

28-40 Penn Ave. Pittsburgh, Pa.

## Rocky Mountain Area

*(Continued from Page 74)*

The Glacier Production Co. No. 2 Neill, NE cor. section 20-33n-5w, swabbed 450 bbls. first 24 hours at 2,992 feet after running a Roe underdigger and enlarging the hole to 10 inches. The Cut Bank was at 2,933-91 feet and the elevation is 3,873 feet. Oil rose 2,000 feet in the hole.

Texas Co. No. 4 Section 9 Unit, C NE NW section 9-32n-5w, swabbed 78 bbls. first 20 hours at a total depth of 3,092 feet. The 7-inch was cemented at 3,072 feet.

Nadeau Brothers No. 4 Farmers State Bank, CSL NE section 17-33n-5w, swabbed 120 bbls. first 24 hours at 2,948 feet from pay at 2,900-44 feet.

A. E. Crumley No. 2 All-112, C NW SW section 6-32n-5w, swabbed 108 bbls. first 24 hours at 2,990 feet from the Cnt Batnk at 2,950-87 feet.

Hannah-Porter No. 3 All.-130, NW SE SW section 6-32n-5w, swabbed 215 bbls. first 17 hours from the Cut Bank at 2,878-2,921 feet. Total depth, 2,924 feet.

Glacier Prod. Co. No. 1 Barrington, 820 ft. from N line and 2,640 ft. from W line, sec. 19-33n-5w. R.O.G.; (first report).
Glacier Prod. Co. No. 1 Connolly A-20, C SE SE sec. 30-34n-5w. Drlg. 670 ft.; Colo. 385 ft.; 10¾-in. 450 ft.
P.M.K. Co. No. 3 Haglund, Sr., SE NW NE sec. 14-34n-6w. Drlg. 1,700 ft.
Wm. Hanlon No. 3 All.-128, CWL SW NE sec. 12-32n-6w. Drlg. 150 ft.
Texas Co. No. 2 Tweedy, C NE NW sec. 21-35n-6w. Cmtd. 10¾-in. at 700 ft.
A. B. Cobb No. 5 Walburger, C NE SE sec. 35-35n-6w. R.O.G.; (first report).
Grant Oil Co. No. 1 Rueffen, C SW SE sec. 5-32n-5w. Spdg. 100 ft.
Montana Headlight Oil Co. No. 5 Britton, SE SW NE sec. 14-34n-6w. Drlg. 2,786 ft.
R. C. Tarrant No. 4 Reickhoff, NE NE SE sec. 22-32-6w. Drlg. 1,925 ft.
Glacier Prod. Co. No. 2 State-16, SW SW SW sec. 16-33n-5w. Cmtd. 7-in. at 2,930 ft.
Texas Co. No. 2 Hardwick, C NE SE sec. 17-32n-5w. T.D. 2,965 ft.; bailing.
A. E. Wilkinson No. 3 All.-127, C SE SE sec. 1-32n-6w. Drlg. 2,535 ft.
K. D. Pardee No. 1 Corrigeaux, NE NE SE sec. 35-34n-6w. Cmtd. 7-in. at 2,960 ft.; drlg. in.
A. R. Pardue No. 1 Anderson, C SE SW sec. 31-32n-5w. Drlg. 2,740 ft.

**Petroleum County**

H. C. Rowland No. 1 Kalispel, NE NE SE sec. 35-14n-25e. Drlg. 819 ft.
O. B. Canfield No. 1 Govt., CEL SE NE sec. 21-17n-24e. Rng. 3-in. to set at 750 ft.

**Pondera County**

Model Oils, Ltd., No. 1 Hollam, NW NW NW sec. 12-28n-6w. T.D. 2,966 ft.; landed 8¼-in. at 2,963 ft. and S.D.; reported 1,100 ft. of oil in hole after stdg. 6 days; not confirmed.

**Roosevelt County**

John W. Schmidt et al No. 1 Frue, NW NW NE sec. 21-28n-50w. Drlg. 600 ft.

## Toole County

The Kevin-Sunburst field had only one completion. S. F. Scotland No. 1 McNamar, C NE SW section 29-35n-3w, made 10 bbls. per day on the pump at 1,760 feet after acidizing with 500 and 750 gallons. Contact was at 1,758 feet.

The Consolidated Gas Co. No. 2 fee, CEL SE NW section 29-35n-2w, reported a completion last week for 150 bbls. per day after acidizing, settled to 18 bbls.

Texas Co. No. 6 Swears, NW NE SW sec. 9-35n-2w. T.D. 146 ft.; rng. 10¾-in.; (first report).
A. Beardslee No. 7 Swears, NE SW NW sec. 9-35n-2w. Drlg. 705 ft.
Lamont Pet. Co. No. 3 Van Note, CNL NW NW sec. 30-35n-2w. S.D. 105 ft.
Prevol & Shea No. 1 Porter, CSL NW NW sec. 12-34n-3w. Drlg. 900 ft.
Nepstad et al No. 2 Haugen, C NW NE sec. 11-35n-3w. Drlg. 990 ft.
Atland No. 1 Ward, C NW SE sec. 29-35n-3w. T.D. 1,648 ft.; cmtd. 7-in.
Leo Sweeney No. 5 Davis, NW NE SW sec. 27-35n-3w. Drlg. 1,350 ft.
Big West Oil Co. No. 4 McDonald, CNL SE SW sec. 19-35n-2w. T.D. 1,545 ft.; contact 1,527 ft.; will acd.
Wm. McKnight No. 2 State, NW NW NW sec. 16-35n-2w. T.D. 1,615 ft.; contact 1,602 ft.; nice S.O.; will acd.
New Era Fuel Co. No. 1 Goeddertz, CWL NE SW sec. 2-35n-3w. T.D. 1,813 ft.; contact 1,792 ft.; dry; B.P. to test Sunburst.
A. C. Crumley No. 12 Shaw, SE NE NW sec. 35-26n-2w. Drlg. 1,410 ft.
E. C. Carney No. 2 Stockman, CSL NW NE sec. 11-35n-2w. Drlg. 790 ft.
Security Oil Co. No. 1 Kopsing, CWL SW SE sec. 24-34n-2w. Loc.; (first report).
Capitol Oil Co. No. 1 Pace, C SE SW sec. 27-36n-1w. Drlg. 1,835 ft.
S. V. Day No. 3 Halter, NE NE NE sec. 17-35n-2w. Drlg. 660 ft.
Watson et al No. 2 Leach, SE NE NE sec. 31-35n-3w. S.D. 1,796 ft.
Browning-Sunburst 32 Synd. No. 1 Goeddertz, NE NW SW sec. 21-36n-3w. T.D. 1,600 ft.; U.R.
Bryant Bros. No. 1 Lashbaugh, NE SW NW sec. 34-25n-2w. T.D. 850 ft.; R.U. heavier mach. to resume.
Ogden-Kevin Oil Co. No. 7 Zachot, SE SW NW sec. 20-35n-1w. S.D. 900 ft.
Gus Blaze No. 5 Burwash, CSL NE SW sec. 15-34n-1w. Drlg. 1,528 ft. in sd.; Ellis 1,525-28 ft.; est 3 or 4 bbls.
F. C. Platt No. 1 Roseth, SE SE NE sec. 35-35n-3w. T.D. 1,528 ft.; acd. 500 gal.; not tested.
Treasure State Oil Co. No. 4 Shaw, SW NE NE sec. 35-36n-2w. T.D. 1,571 ft.; shot with 80 qts.; not tested.
Eagle Pet. Co. No. 1 Haugen, C SE NW sec. 12-35n-3w. T.D. 1,585 ft.; Sunburst 1,522-36 ft.; not tested.

**Outside Kevin-Sunburst**

Model Oils, Inc., No. 1 Fey, NE SW sec. 5-37n-3e. Rig.
T. P. Kyle No. 1 Kielbaugh, CWL SW SW sec. 2-37n-1w, Bow and Arrow dome. Drlg. 1,080 ft.

**Yellowstone County**

Western Dakota Oil Co. No. 1 Fox, CEL NW NE sec. 14-2n-23e. S.D. 450 ft.
Broadview Dome Oil Co. No. 1, NE NE SW sec. 18-3n-23e. T.D. 1,210 ft.; heavy S.G.; will set pipe.

## UTAH

**Daggett County**

Mountain Fuel Supply Co. No. 1 Lauzier, CNL NW NW sec. 27-3n-24e. Drlg. gray sh. 5,387 ft.

### Emery County

The joint test of the California Co. and the Continental Oil Co. on the San Rafael Swell in their No. 2 Unit, C NW NW section 27-23s-11e, encountered schist at 4,855 feet and was drilled to 4,900 feet. It plugged back to test some shows in upper horizons and then was abandoned. The San Rafael Swell occupies nearly all of central Emery County and is a huge uplift 75 miles long and 30 miles wide. The Coconino sandstone outcrops in the center of the swell and successive younger strata are exposed toward the edges up to the top of the upper Cretaceous.

**Grand County**

Utah Southern Oil Co. No. 1 Hyde, SE NW NW sec. 33-22s-22e. S.D. 6,715 ft.; M.I. heavier rot. equip.
Columbia Crude Corp. No. 1 Rath, NW SW SE sec. 12-25s-20e. S.D. 2,265 ft.; to erect standard drk.
Cane Creek Oil Co. No. 1 Govt., NW SW sec. 31-26n-21e. T.D. 60 ft.; driving 17-in. condr. pipe.

## NEBRASKA

**Sioux County**

J. M. Huber Corp. and United Producers, Inc., No. 1 Morgan, C SW SW sec. 32-35n-56e. Drlg. 2,915 ft.; to go to Sundance.

**Dawes County**

Stephens Oil Corp. No. 1 Palmer, C NW SW sec. 1-33n-50w. Drlg. 2,572 ft.

**Keith County**

Twentieth Century Oil Co. No. 1 Stuken, C NW NW sec. 21-14n-37w. Drlg. 110 ft.

**Lincoln County**

Smith & Wright No. 1 Hansen, C SW NW sec. 24-15n-31w. S.D. 1,805 ft.

**Jefferson County**

L. R. Page et al No. 1 Bonham, C SE SE sec. 1-1n-1e. Spdg.

## Southwest Texas Fields

*(Continued from Page 59)*

a showing of oil. Top of the Edwards was cored at 6,409 feet and casing has been set on bottom.

To the northwest, in Edwards County, what appeared to be a possible strike several days ago was given up as Auld and others No. 1 Rigsby was abandoned at total depth of 3,952 feet. The wildcat, located 15 miles northeast of Rocksprings, had a show of oil in the Ellenberger at 3,920-22 feet, but tested water.

The Laredo district remained comparatively quiet with North Sweden the principal exception. That newly opened area now has 13 rigs actively drilling or moving in. To the north, and also in Duval County, the Labbe field was extended for oil production when Magnolia Petroleum No. 5 Labbe Ranch in Survey 1 was completed for 480 bbls. per day. Labbe was originally a gas field, recently opened to oil production.

A wildcat south of the Seven Sisters field in Duval County is due for considerable attention. It is Liberty Oil Co. No. 1 State in section 216, due east of the Brinkoeter wells which are separated from Seven Sisters by dry holes. The fourth of that group was abandoned this week at 3,030 feet.

## California Fields

*(Continued from Page 64)*

feet. In the Dominguez field of Los Angeles Basin, Shell Oil Co. is making preparations to complete No. 3 Manuel in the first Callender zone at 4,241 feet. A 6⅝-inch liner has been run in and cemented at 4,125 feet. This is the first well scheduled for completion in the first Callender zone in several years, as new wells started within the past six months were tentatively scheduled for completion at some point below the sixth Callender zone.

# Clark Bros. Co. Merges With Dresser

Official announcement is made of the merger of Clark Bros. Co., Olean, N. Y., with S. R. Dresser Manufacturing Co., Bradford, Pa. Clark Bros. Co. is a prominent builder of 2-cycle gas engines and compressors, having pioneered many improvements in gas-engine design in the 57 years it has been in business. Equally old and well-known is the S. R. Dresser Manufacturing Co., world-known maker of flexible pipe joints used on many of the country's largest and longest gas transmission lines. It also manufactures a complete line of pipe line repair devices. A Canadian subsidiary, Dresser Manufacturing Co., Ltd., of Toronto, was established in 1931.

In recent years, Dresser has entered the gas-engine field with a new radial type gas engine and compressor of its own, a 2-cycle design. It is believed the engine operations of both companies may be consolidated at Olean in the near future.

The merger was effected by exchange of some Dresser Class A treasury stock for the capital stock of Clark Bros. Co. In June, 1933, the Dresser company acquired Bryant Heater Co., of Cleveland, manufacturer of gas boilers, furnaces, conversion burners, unit heaters, and air-conditioning equipment. Dresser felt by this move it could contribute materially to the building of greater gas loads.

In the acquisition of Clark Bros. Co., observers see a continuation of this program of constantly widening usefulness to the gas industry. Through this new association, with its combined resources for research activities and its interchange of engineering knowledge and experience between the three companies, it is felt new and significant improvements in products for the utilization of gas will be made possible.

The officers of Clark Bros. Co. are C. P. Clark, president; J. B. O'Connor, vice president; and of the S. R. Dresser Manufacturing Co., Fred A. Miller, chairman of the board; H. N. Mallon, president, and M. N. Davis, executive vice president.

*F. A. MILLER*

*C. P. CLARK*

# North Louisiana, Arkansas

By MITCHELL TUCKER

# DEFINITELY PUSH RODESSA INTO MILLER COUNTY, ARK.

SHREVEPORT, La., June 28.—The extension of the Rodessa field into Arkansas last week, marking it as the first tri-state pool, topped a series of other important developments, including discovery of new fields in Northern Louisiana and the East Texas border territory.

Louisiana allowable production for July has been set at 263,850 bbls. by the Department of Conservation, a new peak for that state. Of this amount, 181,350 bbls. was allocated to the South Louisiana fields and 82,500 bbls. to the North Louisiana fields. This represents an increase of 3,700 bbls. for the northern fields, all of which was allotted to the Lisbon field to care for new completions. Allowable for Rodessa was continued at 50,000 bbls. per day, Lisbon raised to 10,000 bbls. daily, and other fields untouched at 22,500 bbls.

### Estimated Daily Production

Estimated daily gross production all companies week ending June 26, 1937:

**NORTH LOUISIANA**

| | |
|---|---|
| Bellevue | 770 |
| Caddo light | 3,980 |
| Caddo heavy | 2,565 |
| Converse | 810 |
| Cotton Valley heavy | 250 |
| Cotton Valley light | *2,660 |
| De Soto and Red River | 1,615 |
| Elm Grove | 325 |
| Haynesville | 3,115 |
| Holly | 135 |
| Homer | 2,525 |
| Lisbon | 12,725 |
| Pleasant Hill | 135 |
| Rodessa | 49,000 |
| Sarepta-Carterville | 380 |
| Sligo | 340 |
| Sugar Creek | 600 |
| Urania | 2,855 |
| Zwolle | 770 |
| Total | 85,555 |

**SOUTH ARKANSAS**

| | |
|---|---|
| Champagnolle | 1,530 |
| El Dorado | 2,020 |
| Lisbon | 285 |
| Miller County | 475 |
| Nevada | 760 |
| Schuler | 1,675 |
| Smackover light | 2,175 |
| Smackover heavy | 16,980 |
| Stephens | 560 |
| Troy | 625 |
| Urbana | 1,270 |
| Total | 28,355 |

Texas side of Rodessa field, 37,375 bbls. daily.
*2,205 bbls. is distillate.

### Rodessa—Arkansas

Definitely proving itself to be the largest producer in the North Rodessa area, also productive in Texas and Louisiana, Arkansas entered this common reservoir through the completion of McClanahan and others No. 1 W. L. Capps, NW SE SW of section 11-20-28, Miller County, Arkansas, 2 miles northeast of present Louisiana production.

The massive anhydrite was drilled here from 5,510 to 5,764 feet, the Hill topped at 5,903 feet, the Gloyd at 6,020 feet, the Mitchell oil saturation 6,075 to 6,080 feet, and saturated lime at the base of the Gloyd from 6,073 to 6,091 feet. At a total depth of 6,103 feet, the lower lime section was acidized with 3,000 gallons, and after several days testing and swabbing, well blew in and was turned into tanks. For the first hour it flowed 100 bbls., it was then pinched in to 60 bbls. hourly and later pinched in further to about 35 bbls. hourly. On official 18-hour test the well flowed 594 bbls. of clean oil, or an average of 33 bbls. hourly.

Estimates of open-flow potential range from 2,000 to 3,000 bbls. daily. Gas-oil ratio was placed at about 500 feet per barrel. Gravity of the new oil is about 45 degrees A.P.I., similar to other production from the North Rodessa area in Louisiana and Texas.

In as much as the Arkansas Board of Conservation has announced that there will be no proration of this production, a very rapid development campaign is in preparation. It is estimated that as much as 6 square miles is proven productive by this completion, about one-half of which is across the Arkansas line. Extensions further to the north into Arkansas are probable due to the thickening saturated section logged in the Capps extension well.

Freeman W. Burford, president of East Texas Refining Co., has taken an option on the 4,000-bbl. refinery now shut down by Griswold Refining Co. in the Rodessa field, and will begin operations here if he is successful in his negotiations with McClanahan and others in the outright lease purchase or pipe line connection there.

### Rodessa—Louisiana

The center of attention in the Louisiana portion of Rodessa lies in R. W. Norton's 12,000-foot test, No. 1 Payne, SE SE section 27-23-16, in the gas-producing belt south of the townsite, where drilling is now progressing at 11,145 feet. It is reported that drilling is somewhere in the Upper Paleozoic rocks. Several impressive shows have been logged in upper beds, it is stated.

United Gas completed No. 2 Starke, SW SW of section 9-23-16, flowing 21 bbls. hourly through three-eighths inch tubing choke, total depth 5,955 feet.

### Rodessa—Texas

Possibilities of important commercial production in beds below the present producing level at Rodessa are much brighter, following the appearance of oil in United Producing Co. No. 1 J. W. Land, R. Potter Survey, which was completed recently as a 1,000,000-foot gas well in an Oolitic lime section in the top of the Travis Peak, total depth 6,533 feet. After producing as a small gas well for about three weeks, showings of oil were noticed, and they continued to increase, until recent production test showed the well to be producing about 75 bbls. daily, or about 3 bbls. hourly. Important production may be found in this formation in more favorably situated wells on the structure.

Six oil wells and one gas well were completed on the Texas side of Rodessa field last week, flowing an aggregate initial volume of 3,045 bbls. daily.

United Producing Co. No. 2 J. Q. Clements, William Hughes Survey, gauged 10,000,000 feet of gas, total depth 6,090 feet.

### LOUISIANA

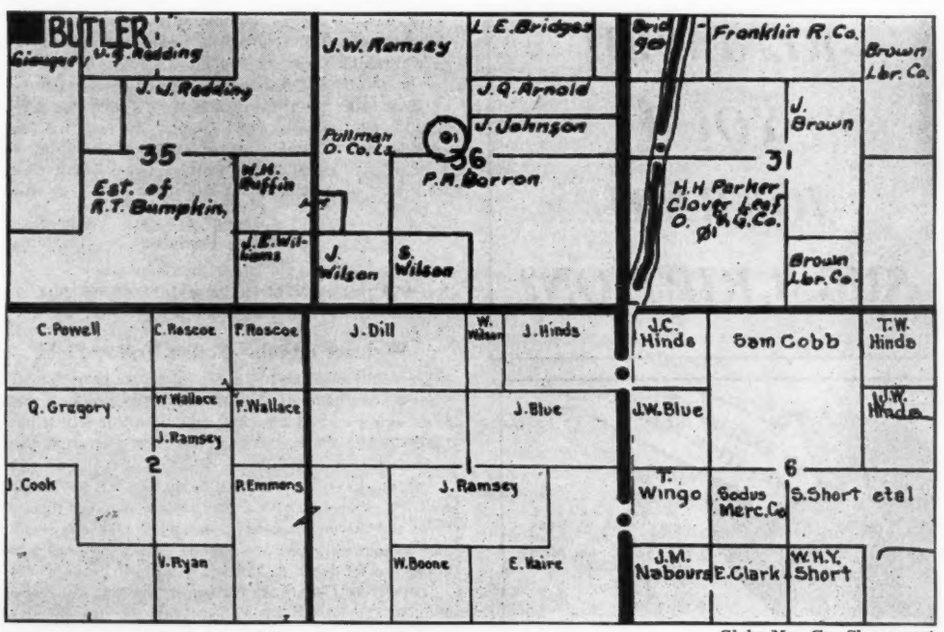
#### Bossier Parish

United Gas No. 2-I A. C. Skannal, SW section 25-17-12, in the Sligo oil and gas field, gauged 40,500,000 feet daily on potential test from the Pettit lime, topped at 5,109 feet, total depth 5,156 feet.

#### Caddo Parish

As a routine completion in the Caddo field, Chew & Chew No. 1 Standard of Louisiana, SE section 32-21-16, pumped 20 bbls. daily, total depth 961 feet.

W. J. Hunter No. 1 Stoer, section 10-15-15, wildcat test in the Keithville area, perforated 7-inch from 5,990 to 6,012 feet (total depth) and tested dry. Preparations are being made to test upper levels.




Globe Map Co., Shreveport

*Pullman Oil Co. No. 1-A Ramsey, section 36-11-11, in southern DeSoto Parish, Louisiana, looms as a field opener as drill stem test in the Woodbine sand from 2,931 to 2,961 feet indicated 22 joints of clean oil on initial test. It is 6 miles northeast of the Pleasant Hill field*

### De Soto Parish

Pullman Oil Co. (M. J. Grogan and others) No. 1-A Ramsey, section 36-11-11, in southern De Soto Parish, loomed as a new field opener last week. Situated about 6 miles northeast of the Pleasant Hill field, a drill-stem test in the Woodbine sand from 2,931 to 2,961 feet indicated 2 joints of mud, 22 joints of clean oil, and 1 joint of muddy water. Oil tested 37.9 gravity, A.P.I. corrected. Schlumberger survey has been made

A SIZE AND TYPE FOR EVERY PURPOSE

FRANCKE • GEAR TYPE

WALDRON

FLEXIBLE COUPLINGS

These strong steel couplings are in general use wherever drives are subject to shock loads or vibration. Their design and construction make them about as trouble-free as it is possible to build a flexible coupling. MEDIUM DUTY type for small bore; TORQUE RING for heavy duty; Mill Motor type; Floating Shaft type; FRANCKE Standard and Special Types.

*Write for catalog or services of our Engineering Department that welcomes the opportunity to advise you on your requirements.*

JOHN WALDRON CORPORATION

NEW BRUNSWICK • NEW JERSEY

New York Pittsburgh Chicago Portland, Ore.



*HAVE YOU RENEWED YOUR JOURNAL SUBSCRIPTION?*

New nut housing. Locks Anchor firmly on rod. Rod cannot slip thru Anchor when being installed.

EVERSTICK ANCHORS...

Engineers appreciate Everstick features which assure safety, long life and ease of installation in any soil condition.

A complete line with 3 types of expanding Anchors and rigid types of Cone Anchors. All sizes and holding capacities. Write for Everstick literature including new folder on Rural Electrification Lines.

THE EVERSTICK ANCHOR COMPANY

Fairfield, Iowa


to determine proper casing seat, and pipe is now on the ready while preparations are being made to set and test.

### Claiborne Parish—Lisbon Field

A one-half mile extension of the Lisbon field was made last week by the completion of Gulf Refining Co. No. 1 Henry, S half NW NE section 31-21-4, which flowed 720 bbls. on 24-hour initial test from 20 feet of saturated Pettit lime, total depth 4,217 feet.

Lyons & Neely No. 2-B Patton, E half SE SW section 31-21-4, flowed 16 bbls. hourly through one-quarter inch tubing choke, total depth 5,280 feet.

Hollifield & McFarland No. 1 M. Patton, W half NW SE section 31-21-4, flowed 624 bbls. daily through 27/64-inch tubing choke, 3,000-gallon acid charge, total depth 3,520 feet.

In Lincoln Parish portion of the field, the same operators completed No. 1 Carruthers, N half NE NW section 6-20-4, flowing 15 bbls. hourly through 12/64-inch tubing choke after 3,000-gallon acid charge, total depth 5,290 feet.

Average daily production at Lisbon reached an all-time high of 12,750 bbls. last week.

### Lincoln Parish

H. D. Easton and Belmont Quadrangle Drilling Co. No. 1 G. W. Dye, NE NE section 21-19n-4w, important wildcat on the North Simmsboro structure, drilled the massive anhydrite from 4,360 to 4,568 feet, and encountered about 15 feet of porous lime with good resistivity (indicated by Schlumberger) at about 4,600 feet. Operators plan to drill to the contract depth of 6,000 feet for exploration of the Pettit lime and Upper Travis Peak before testing this possible horizon.

### Sabine Parish

Kirk-Green-Way, Inc., No. 1 Whitney Corp., NW NE section 8-9-13, deep test of the old Converse oil field, has resumed drilling after being shut down for several weeks at 5,707 feet in the base of the Lower Glen Rose, to which point no commercial production was encountered. Drilling at 5,962 feet now, it is the intention to penetrate and test beds of the Upper Travis Peak.

A. C. Scott No. 1 Bowman Hicks Lumber Co., section 23-9-13, old well deepened from 1,716 feet, has been completed at a total depth of 3,097 feet, pumping 100 bbls. of fluid daily, 75 per cent of which is salt water. This well is situated upon the flank of the Converse field.

### Union Parish

In the Monroe gas area, Interstate Gas Co. No. 68 fee, SW section 29-21-4e, gauged 11,000,000 feet, 790 pounds rock pressure, total depth 2,159 feet.

### Webster Parish—Cotton Valley Field

In addition to the two completions made in the deep sand development at Cotton Valley last week, 3 wells are rigging up and nine are drilling, all of which have the 8,500-foot Bodcaw gas and distillate horizon as their objective.

Ohio Oil Co. No. 1 S. P. D. Coyle, NW SE SW section 23-21-10, flowed 305 bbls. of distillate per day through three-eighths inch tubing choke, with 3,000,000 feet of gas, tubing pressure 2,500 pounds, casing pressure 2,700 pounds, total depth 8,452 feet.

Ohio Oil Co. No. 2 A. J. Hodges, NE NW SW section 23-21-10, flowed 470 bbls. of distillate per day on initial test through three-eighths inch tubing choke, with 4,000,000 feet of gas, tubing pressure 3,100 pounds, casing pressure 3,200 pounds, total depth 8,517 feet.

## ARKANSAS

### Dallas County

J. C. Kelly No. 1 Serrells, SE SE SW section 35-10-16, drilled the Nacatoch sand from 1,575 to 1,600 feet, and has been abandoned as dry at a total depth of 1,662 feet.

### Hempstead County

E. H. Moore, Inc., No. 1 fee, NE NE SE section 21-14-25, wildcat test of his block in southern Hempstead County, has been abandoned as dry at 4,515 feet, after drilling through Upper Travis Peak formations.

### Nevada County

Benedum & Trees No. 1 Grove, section 10-14-20, deep exploratory test of the Troy structure, drilled the base of the salt from 6,133 feet, and cored anhydrite to 6,143 feet. This hole has been plugged back from 6,143 to 2,175 feet, where an attempt will be made to complete it in the Tokio producing formation at Troy.

### Ouachita County

J. D. Reynolds and others No. 1 Fort Smith Land Co., NW NW section 34-11s-17w, wildcat test about 15 miles north of Camden, found the Nacatoch sand from 1,190 to 1,220 feet dry, and has been abandoned.

### Union County—Schuler Field

Lion Oil Refining Co. No. 1-B Edna Morgan, SW NW SE section 18-18-17, which drilled a total of 86 feet of oil saturated sand from 5,553 to 5,827 feet in the newly opened Schuler field, perforated 7-inch casing from 5,797 to 5,827 feet with 80 shots and flowed 1,998 bbls. of oil on a 37-hour test. Salt water made its appearance early in this test and continued until about 50 per cent of fluid was water. The hole has been plugged back from 5,827 to 5,792 feet, and casing will be reperforated opposite saturated sections higher in the Marine beds of the Travis Peak.

Three new locations were staked at Schuler last week, bringing Arkansas' most active field to nine rigging up and nine drilling wells. Daily average production for last week from the three producers was 1,675 bbls.

## EAST TEXAS (Border Counties)

### Panola County

Glassell & Glassell No. 1 Pierce and Chesbro, Julia Stape Survey, had salt water only in a drill-stem test at 4,955 feet in the level from which their gas and distillate discovery well was completed several months ago. Drilling continues at 5,122 feet.

### Shelby County

Redditt & Gray No. 1 Pickering Lumber Co., Stephen English Survey, about 6 miles south of Joaquin, is being watched closely as it presents all indications of being an oil and gas field opener. Bottomed at 4,109 feet in the Paluxy sand, the well was acidized with 2,000 gallons and tested about 25,000,000 feet of saturated gas and distillate. After some testing, crude oil sprays were noticed, and twice the well headed up and produced streams of oil, testing 39 to 40 gravity. Pressure on tubing stood at 2,200 pounds. Tanks and separators are being set in preparation to make conclusive production tests.

## MISSISSIPPI

### Bolivar County

Phillips Petroleum Co. is now rigging up a heavy

*(Continued on Page 98)*


Are There FIRECRACKERS IN YOUR BOILERS?

We doubt very much if any engineer has ever been faced with this absurdity; even though a few may have had the unfortunate experience of finding a "giant" under their chairs.

But scale and corrosion doesn't belong in boilers and engines any more than firecrackers do! While scale and corrosion may not be quite so dramatic—it can do more damage.

A "Safe and Sane Fourth" is being enjoyed by many operators in the Oil Industry. They have eliminated these costly hazards with—

SAND BANUM

*"The Entirely Different Boiler and Engine Treatment"*

Sand-Banum brings a new "freedom" to power plants. And is absolutely harmless to all equipment and persons applying it. Its simplicity is welcome everywhere—comes ready for use in 16 ounce cans and a few ounces from one to four times per month do a better job than hundreds of pounds of "chemical compounds"!

May we prove to you that Sand-Banum can bring you a greater "Independence" on our "Satisfaction or No Money" guarantee? Write today for our booklet "How and Why."

AMERICAN SAND-BANUM COMPANY, Inc.

9 Rockefeller Plaza New York City

*Stocks carried by*

WESTERN SAND-BANUM COMPANY

Houston, Texas Fresno, Calif.

and at other convenient points including leading supply houses.

# Central West

By STAFF CORRESPONDENT

# PURE HAS SECOND BIG WELL ON ITS CLAY COUNTY BLOCK

MATTOON, Ill., June 28.—The Pure Oil Co. has another big producer in Clay County, No. 1 Sarah Bechtel, NW NW SW section 33-3n-8e, total depth 2,967 feet. The well swabbed 399 bbls. in 6 hours and 30 minutes. Later it flowed 1,276 bbls. of oil and 576,000 feet of gas in 22 hours through 2½-inch tubing, on open flow. Still later it flowed 1,721 bbls. in 22 hours. The oil is from McCloskey sand, grades 38.8 degrees in gravity and there is no water or basic sediment. It is not as large a well as the company's No. 1 Travis in SW SW NW section 33, which started at 2,643 bbls. from sand at 2,941-64 feet, but it clearly indicates that the Pure Oil Co. has a rich property in the big block surrounding these wells.

Other interesting wells on the way to completion include Santa Fe Oil Co. No. 1 Robbin, SE SW SE section 5-1n-3w, which was given two 20-quart shots in Carlyle sand at 975-84 feet, total depth 989 feet, and the well pumped 77 bbls. of oil the first day. The Pure Oil Co. No. 1 Brach, NW NW SW section 26-1n-7e, Wayne County, is a hole full of oil, after it had been given a 10-quart shot at 3,071-76 feet and a 20-quart shot at 3,094-3,104 feet. The crew was getting ready to run 5½-inch casing.

The Wiser Oil Co. has a dry hole in one of its Marion County tests and the drilling report below will show holes full of water and some other disappointing indications.

### Bond County

Whitehead & Morey had a hole full of water and shut down at 1,311 feet in No. 1 Polland, NW SE SW section 26-6n-2w, Bond County.

### Marion County

Adams Oil & Gas Co. and Felmont Corp. No. 5 Merryman, 630 feet from south and 1,100 feet from west lines of SW quarter section 21-4n-1e, Marion County, was shot with 10 quarts in Benoist sand at 1,392-1,413 feet, and the crew was cleaning out after recovering sand pump lost in the hole. Brown and others No. 1 Bachman, NW NW SE section 22-4n-1e, set 10-inch at 970 feet, and were drilling at 1,040 feet. Adams Oil & Gas Co. No. 1 Ainscough, NW cor. NE section 28-4n-1e, set 8⅝-inch casing at 97 feet. Cypress Oil & Gas Co. No. 1 Adams, C N half SW section 28-4n-1e, set 6⅝-inch casing at 1,430 feet, total depth 1,448 feet. Eddington, Baldwin & Parker No. 1 Nichols, 1,170 feet from west and 550 feet from south line of SE quarter section 12-4n-4e, was awaiting 6-inch pipe at a total depth of 2,126 feet. Carter Oil Co. No. 1 Medsger, C W half NW SE section 4-4n-1e, had arrived at the derrick stage. Adams Oil & Gas Co. and Felmont Corp. No. 7 Merryman, CNL NW NW section 28-4n-1e, had Stein sand at 1,283 feet and was drilling at 1,285 feet.

Sunflower Oil & Gas Co. No. 1 Murfin, NE cor. NW NE section 33-4n-1e, drilled to 1,075 feet and is temporarily shut down. Hempen & Burgess No. 1 Joliff, NE NW SE section 28-4n-1e, was drilling at 1,412 feet. C. G. Evans (formerly reported Hempen & Burgess) No. 1 Allison, CNL NW SW section 33-4n-1e, was drilling at 1,432 feet.

Adams Oil & Gas Co. and Felmont Corp. No. 1 Sam Pugh, NW cor. SE section 29-4n-1e, which was plugged back from 1,655 feet to 1,588 feet and shot, was put on the pump and produced 57 bbls. of fluid in 24 hours, 50 per cent water. Same operators' No. 1 Davidson, CNL SW SW section 21-4n-1e, in which the crew tried to cement off water, had the plug drilled and the hole filled with water. Liner was run and the crew was cleaning out. Same operators' No. 2 Davidson, SW cor. SW SW SE section 21-4n-1e, had the top of the Roseclair sand at 1,596 feet, with a showing of oil. Casing, 6⅝-inch, was set at 1,593 feet, and the hole was at a total depth of 1,598 feet. Same operators' No. 6 Merryman, CWL SE SW section 21-4n-1e, was shot at 1,414-30 feet, and the hole filled 475 feet with oil and was being cleaned out.

Schlassberg & Sigel No. 1 Roddy, SW cor. SE SW section 20-2n-3e, was running 8-inch pipe to 1,175 feet. Hempen & Burgess No. 1 Jeff Smith, NW NW SE section 28-4n-1e, was shot with 10 quarts in Benoist sand at 1,440-49 feet, total depth, and the hole filled with oil 900 feet. Illinois National Oil Co. No. 1 City of Patoka, NW NE SW section 28-4n-1e, was drilling at 1,416 feet. It penetrated a stray sand at 1,411-13 feet Frank A. Frederick No. 1 Allen, C N half section 28-4n-1e, set 8-inch casing at 1,197 feet, and was drilling at 1,239 feet.

### Clay County

Derricks were up for Wickland Development Co. No. 1 Brissenden, a wildcat, SE SE SW section 29-3n-8e; Pure Oil Co. No. 1 Nicholas Moseley, C SE SW NE section 33-3n-9e; No. 2 Sarah Bechtel, C SW SW NE section 33-3n-8e, and same company's No. 1 Albert Travis, SE NE NW section 33-3n-8e. Pure Oil Co. was drilling below 55 feet in No. 1 A Francis, SE NE NW section 33-3n-8e.

### Christian County

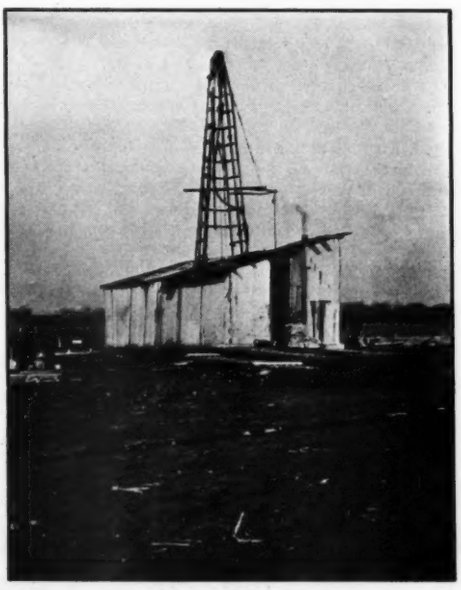
Bear Creek Oil & Gas Co. No. 3 Glass, NW NW SW section 29-12-2w, Christian County, is a hole full of water from the top of sand at 828 feet, and is shut down. It has a showing of gas.

### Richland County

Ohio Oil Co. was moving in rig for No. 1 Arbuthnot, NW NW NW section 8-3n-9e, Richland County.

### Fayette County

Milliken & Rush No. 1 H. Bahde, NW NW SW section 16-5n-3e, Fayette County, is spudded, but was waiting for a rotary. O. A. Davis and others abandoned location for No. 1 Ford, SW NE SW section 31-5n-3e.



*Core drilling machine which drilled two wells in the new Patoka, Illinois, field for the Adams Louisiana Co. of Houston, Tex., now the Adams Oil & Gas Co.*

### Harden County

Marietta Oil Co. No. 1 Fricke, SE SE SE section 30-11s-8e, in Harden County, which has been shut down for months at 2,345 feet, where it had a hole full of water from Trenton lime, has been abandoned.

### Jasper County

Richard Eke No. 1 Klein, SW SW NW section 7-6n-9e, Jasper County, has been abandoned. It had been drilled to 2,545 feet and only had a showing of oil at 1,303-1,452 feet.

### Fayette County

Beaton & Ryer No. 1 Thompson, NW NW NE section 20-4n-1w, Fayette County, set 10-inch pipe at 804 feet, total depth 804 feet, and drilling will resume when cement has set.

### Randolph County

John E. Mabee and others were drilling at 800 feet in No. 1 Wilson, 330 feet from east and 675 from south lines of NE quarter, section 3-4s-4w, Randolph County.

### St. Clair County

A. J. Colgan No. 1 Reichert, NW SW SW section 18-1s-7w, St. Clair County, set 6-inch pipe at 1,732 feet and was drilling below 1,762 feet.

### Clinton County

Timberlake Oil Co. No. 1 Bergman, SE NW SW section 8-1n-3w, Clinton County, was shut down at 970 feet with a hole full of water. Patoka Petroleum Co. No. 1 Ducomb, C SE SE NW section 13-3n-1w, had the top of the Stein sand at 1,376 feet and was running 5-inch casing. It had a hole full of water at 1,425 feet, total depth 1,429 feet.

### Wayne County

Pure Oil Co. in No. 1 Stella Billington, SE SE NE section 27-1n-7e, Wayne County, total depth 3,212 feet, sidetracked the hole and redrilled to 3,138 feet and ran 2½-inch tubing and will acidize.

### Perry County

H. H. Forrester had reached a depth of 4,989 feet in No. 1 fee, C W half SW NW section 11-3n-12w, Perry County. The top of the Trenton was at 4,812 feet.

### Clark County

National Consumers Oil Co. was drilling below 1,835 feet in No. 1, NW NE NW section 21-11n-12w, Clark County.

### Vigo County, Indiana

Carter Oil Co. set 12½-inch casing at 130 feet in its No. 1 Paddock in C S half SE NE section 16-10n-10w, Vigo County, Indiana.

---

## OHIO FIELDS

FINDLAY, Ohio, June 28.—Field operations in Ohio were hampered by heavy rains this past week and minor floods made access to locations very difficult and in some places impossible. In spite of this adverse condition there was a very small decrease in completed operations.

The only producer of any size was the Kachelmacher Estate test on the E. H. Davis property, in section 30, Monroe Township, Perry County. This test was complet-

ed in the Clinton sand at approximately 3,650 feet and flowed 60 bbls. of oil and swabbed 40 bbls. the first 24 hours, after a shot. In the same township, section 2, Wehrle Brothers drilled No. 9 Worley Deaver into the Berea sand and abandoned it when it failed to make a showing of oil or gas. In section 20, Monday Creek Township, Moffit & Webb No. 2 M. W. Howdyshall was also drilled into the Berea sand and abandoned when the hole filled with water. In section 16, Reading Township, Hopewell Gas & Fuel Co. is building a rig for the second test on the Lewis Kuliman property. In section 8, same township, Ohio Fuel Gas Co. staked a location on the Blanche Yarger farm.

In Fairfield County, section 6, Pleasant Township, City Natural Gas Works No. 6, Rebecca Loose, was completed in Clinton sand at 2,024-34 feet and gauged 60,000 feet of gas naturally. In section 1, Berne Township, the same company completed No. 2 John Martin as a 70,000,000-foot gas well. This test was completed below the Clinton sand at 2,295-2,305 feet. In section 31, Walnut Township, City Natural Gas Works staked a location for No. 2 Susan Miller.

In Cuyahoga County, Cleveland Township, L. F. McGrath has completed a 172,000-foot gas well on the Bradford and Averill property; Clinton sand at 2,767-98 feet. In Cleveland, Shear & Co. are spudding in on the New York Central Railroad property. In Lot 89, Dover Township, J. W. Irwin is drilling on his own property. In Lot 305, Newburg Township, Rock Ridge Developing Co. is rigged up on the Belt Terminal land.

C. A. McMillen No. 5 Tibbitts Walker, in section 34, Saybrook Township, Ashtabula County, was completed in Oriskany sand at 1,695-1,700 feet and gauged 35,000 feet of gas after a shot.

In Stark County, section 21, Plain Township, Lyons & Co. No. 1 E. D. Longenbaugh had Clinton sand at 4,575-91 feet and gauged 1,101,000 feet of gas after a shot.

East Ohio Gas Co. No. 1 C. J. Fernsell, in section 11, Franklin Township, Tuscarawas County, found Clinton sand at 4,329-44 feet and gauged 1,226,000 feet of gas, naturally. In Lot 7, Sandy Township, Natural Gas Co. of West Virginia staked a location on the William Holshoy property. In section 1, Washington Township, George Jewell plugged and abandoned a test on the Frank Helter property.

In Holmes County, section 27, Monroe Township, Lydic Oil & Gas Co. No. 2 Gladys Bell made 42,000 feet of gas naturally from Berea sand at 961-73 feet. In section 34, Ripley Township, Ohio Fuel Gas Co. staked a location on the Charles Nussbaum property.

In Knox County, section 17, Jefferson Township, H. E. Perkins No. 3 C. V. Banbury had second Clinton at 2,958-70 feet, total depth 3,014 feet, without a show of oil or gas and was abandoned. In section 10, Jackson Township, Preston Oil Co. made a location on the R. L. Jones property.

Wehrle Gas Co. No. 1 Ida Armstrong, in section 1, Franklin Township, Licking County, which was drilled through the sand at 2,854-87 feet, made a small amount of oil and gas after the shot and has been abandoned. In section 1, Hopewell Township, Pure Oil Co. is moving a rig on location for the No. 8, on the Henry Loughman property.

Pure Oil Co. No. 9 Everett Smith, in section 20, York Township, Morgan County, which was drilled through the Clinton sand at 4,105-41 feet, has been plugged and abandoned as a dry hole. In Location 1097, Windsor Township, Burt & Son are spudding No. 10 Susan Minor.

In section 16, Penn Township, C. F. Bowman is moving in a machine on the H. E. Greathouse property.

In Guernsey County, section 6, Jefferson Township, George Jewell & Co. No. 1 Charles Gibson was drilled through the Berea sand at 1,157-1,209 feet, and through a break into the sand again at 1,211 feet where it gauged 677,000 feet of gas. In section 19, Center Township, John Bindas plugged and abandoned the test on the Laura Laughlin property. In section 3, Jefferson Township, Hayes Ferguson & Co. No. 1 L. Kinnison was drilled

*(Continued on Page 98)*

*C. E. Buchner, secretary, congratulating William Bell, of Illinois, president of National Stripper Well Association, on his term of office at the annual meeting in Tulsa*

# Western Kentucky Has a Very Busy Week

## By SPECIAL CORRESPONDENTS

OWENSBORO, Ky., June 28.—Fifteen new oil wells; six gas wells and 11 dry holes a total of 32 completions comprised the record of the Western Kentucky fields for the past week. The list follows:

### Hancock County

Easton district: Jay Petroleum Co. No. 3 Alton Mason, 10 bbls., Barlow sand, 612-644 feet, shot with 80 quarts. Hume and others No. 3 Everett Mason, dry, 555 feet. J. C. Ellis No. 11 Thelia Richards, 40 bbls., Jackson sand; No. 12 Thelia Richards, 40 bbls., Jackson sand. Frank Damron No. 2 Fred Bowling, dry hole through Jackson sand 529-559 feet. Eureka Drilling Co. No. 2 Fred Richards and others, dry hole through Jackson sand. W. E. Hupp and others No. 3 Matt Young, 5 bbls., Jackson sand. Chester Oil Co. No. 5 J. W. Baughn, 25 bbls., Jett sand, total depth 398 feet.

Pellville district: O. D. Vickers and others No. 6 I. C. Stephens, dry hole through Jett sand, total depth 584 feet.

### Ohio County

Fordsville district: H. Vickers and others No. 9 W. C. Richards heirs, dry hole through Jett sand, total depth 280 feet.

Westerfield district: W. W. Damron No. 1 Allen King, dry hole through Jett sand, total depth 788 feet. Vickers & White No. 2 Hulett heirs, 350,000 feet of gas, Jackson sand 1,020-1,041 feet, total depth 1,075 feet, rock pressure 322 pounds in 20 minutes. Jess Ellis No. 10 C. D. Westerfield, 10 bbls. from second Jett sand, 27 feet of pay, total depth 611½ feet.

Adaburg district: Sherman Hall No. 1 W. Whittaker, 330,000 feet of gas, 138 pounds rock pressure, Barlow sand 951-958½ feet, total depth. Snowden & McSweeney No. 27 Howard heirs, 25 bbls., Jett sand.

Friendship Church district: Kentucky Natural Gas Co. No. 3 J. M. Reynolds, 134,000 feet of gas, Barlow sand 591-604 feet, total depth. Kirtpatrick Drilling Co. No. 8 J. W. Hardin, dry hole through Jones sand.

Dundee district: Jay Petroleum Co. No. 2 O. M. Stewart, abandoned at 207 feet. Doc Serman No. 4 J. B. Mitchell, drilled through Jackson sand 517-542 feet, shot 40 quarts, dry and abandoned 863 feet; No. 5 J. B. Mitchell, 10 bbls., Jett sand 378-418 feet. Western Kentucky Petroleum Co. No. 13 C. L. Powers, 5 bbls., Jackson sand, total depth 546 feet.

Sunnydale district: Joe Lang No. 2 Ed F. Cook, dry hole through Barlow sand.

Taffy district: J. C. Ellis No. 19 C. R. Keith, 10 bbls., Jett sand, total depth 958 feet.

### Daviess County

Pellville district: Rex-Pyramid Oil Co. No. 1 John Cooper, 370,000 feet of gas, Jett sand 605-609 feet.

### McLean and Ohio Counties

Hardin pool: The Petroleum Co. No. 8 Mrs. Bettie Cullen, 150 bbls., Jett sand 1,102-1,117 feet, shot 50 quarts, total depth 1,124 feet; No. 9 Mrs. Bettie Cullen, 100 bbls., Jett sand 1,109-1,121 feet, shot 50 quarts. J. C. Miller and others No. 7 Austin & Cullen, 150 bbls., Jett sand 1,097-1,116½ feet, shot 90 quarts; No. 8 Austin & Cullen, 150 bbls., Jett sand 1,099-1,125 feet, shot 90 quarts. W. E. Hupp and others No. 19 Hackett Bros., Jett sand, 150 bbls.

### McLean County

Knobs district: Wickland Development Co. No. 2 Jake Conrad, 700,000 feet of gas, 410 pounds rock pressure, Jett sand 1,340-1,364 feet.

Island district: Snowden & McSweeney No. 1 J. P. Daniels, dry hole through Bethel sand, total depth 1,548 feet.

### Henderson County

Glendean district: Bryan & Patton No. 12 J. Glen Moorman, 304,000 feet of gas, 79 pounds rock pressure, Bethel sand 378-405 feet.

## EASTERN KENTUCKY OPERATIONS

ASHLAND, Ky., June 28.—Two small oil completions were reported in Eastern Kentucky in the past week with activity at a standstill in many of the districts.

The Petroleum Exploration Co. reported the completion of No. 9 on the James Griffin farm on Tickey Fork in Estill County with the operation completed at a total depth of 190 feet and a flow of 5 bbls. of oil per day.

The South Penn Oil Co. has completed No. 49 on the J. M. Garret farm on Titchliway in Estill County at a total depth of 812 feet and a daily flow of 5 bbls. of oil.

Reports from the Fallsburg and Martha districts in Lawrence County and other districts in this section indicate that drilling operations are inactive.

In Knott County, Inland Gas Corp. is testing. Maxon gas at depth of 1,941 feet in No. 1 on E. A. Hammonds farm on the Right Fork of Troublesome Creek. This well was reported completed last week with flow of 550,000 feet of gas per day. Inland is down 1,639 feet in No. 2 R. C. Kilgore in the same vicinity and ready to start No. 1 Ritter Short on Wiley Fork of Troublesome Creek.

In Lee County, drilling operations are continuing on five wells, with this week's report from the field failing to give the depth of operations. The wells are: Rush Cable drilling No. 5 Lafayette Noe on Little Sinking; Henry Day No. 7 Poplar Thicket, top of Bald Rock Hill; Central States Oil Co., drilling No. 3 on M. Shoemaker farm near Zoe; Price Fraley and others drilling No. 4 Andrew Combs land on Billie's Fork; Floyd Fitch drilling No. 1 on Crabtree and Sales land on Cane Branch of Big Sinking. These wells are all in the Big Sinking district.

In Magoffin County, Bed Rock Petroleum Co. is down 100 feet in No. 29 on E. R. Caudill farm on Caudill Fork of Burton Creek. A. V. Hoenig is drilling at the 500-foot mark in No. 34 on Green Rice farm on Litteral Fork in the Wheelersburg district.

In Estill County, Petroleum Exploration has completed No. 9 on the James Griffin farm on Tickey Fork at a total depth of 190 feet with a daily flow of 5 bbls. of oil per day. The South Penn Oil Co. has completed No. 49 on J. M. Garrett farm on Titchliway at total depth of 812 feet with a flow of 5 bbls. of oil per day.

# Michigan Field Report

# TEST WEST OF BUCKEYE HAS OIL MEN WATCHING CLOSELY

By O. C. PRESSPRICH

SAGINAW, Mich., June 28.—With 140 producing oil wells in the Buckeye Township, Gladwin County, oil field drilled since January 15 this year, and crowded mostly into six proved sections in the township, it remained for Archie M. Henry, with two wells in section 36, to attract and hold the center of interest in the past week with a wildcat venture, which if successful will go far to prove the extent of the midway Buckeye pool lying between the Wicklund and Oard pools.

This latest Buckeye wildcat is No. 1 Demuth, in SE SW SW section 22, in almost inaccessible woods far to the west of development in either the north or south discovery pools, and also far west of the Hanners "tattletale" well in section 23—the original midway pool development.

The Henry wildcat is three locations south and 10 locations west of the Hanners well. With drillers down more than 2,800 feet, and formations reported regular, in comparison with Oard pool formations, indications are that the latest Henry well may do more than prove the potential value of the midway pool. Its entrance into the production list would extend the midway pool boundary far westward, and open up a score or more locations between it and the Hanners well. From the geologists' standpoint the well would prove—if a producer—the definite northwesterly-southeasterly trend of the oil structure extending from the Oard pool, which trend also has been apparent in development of the Wicklund pool. Two oil pockets with the same definite trend may be proved, which would affect scores of previously untried locations in unproved territory.

While definite information as to depth of the formations is withheld, it is understood from reliable sources that tops are running from 6 to 10 feet higher in formations through which the drill has passed. Formations at the Hanners "tattletale" well were about 6 feet higher than in the Oard pool.

The Henry wildcat in section 22 is in the northwesterly trend of development from the Oard pool, operators point out, and also in a diagonal trend in the same direction from Henry Nos. 1 and 2 Lincoln Life in section 35, most southwesterly wells in the Buckeye field. Both the latter wells are good producers, although their chances for success were rated slim by other operators while the wells were drilling. The latest wildcat is the only attempt at a well in outside territory in section 22.

Beaver Trust continued to add to its production in section 36 this past week when its No. 2 Upton came in with a natural flow of 750 bbls., gauged in a 24-hour test by the proration referee. The well is located in SW SE NW section 36, and topped the new producers in the south pool.

Gordon Oil Co. No. 2 Trego, SE SE NE section 35, added another favorable producer to the Oard pool with 400 bbls. naturally in 24 hours, and Turner Oil Co. No. 1 McMahon, NE SE SW section 36, developed as a 250-bbl. producer. These three wells boosted the south pool potential by 1,400 bbls. a day.

Fletcher & Rathburn No. 1 Shumway in NE SW SE section 24, a far eastern development in the midway field, reported a quantity of oil in the hole, and was being prepared for acidizing. Indications were favorable that this well would extend the eastern boundary of the midway field, together with the Fortney Oil Co. No. 1 McMahon-Converse, NW SW NE section 24, four locations north and one west of Fletcher & Rathburn. The Fortney well was near completion but definite figures were lacking.

Rex Oil & Gas Co. No. 1 Foster, NW SW SE section 26, was being completed as the week ended, and was being watched with interest as another barometer to the possible northwesterly trend of the Oard pool.

Production of Wicklund pool wells was raised by some 8,000 bbls. daily potential the past week by the addition of several wells, topped by Mammoth Producing & Refining Co. No. 4 Ockerman, NE SE NW section 11, which came in at 3,630 feet—after encountering two pay streaks—to flow naturally an estimated 125 bbls. hourly. The well was gauged at 90 bbls. in 42 minutes.

Other north pool producers included: Sun Oil Co. No. 2 Rabb, SE SE NE section 10, completed at 3,637 feet with a production estimated at 2,000 bbls. daily; Sun No. 2 Ockerman in section 10 completed at 3,650 feet after acid treatment with a production of 550 bbls. daily; Sun Oil Co. No. 3 Ockerman, NE NW SE section 10, good for 275 bbls., and the same company's No. 1 Strohkirch in section 3, completed at 3,656 feet, produced 400 bbls. daily after acid treatment.

Beaver Trust added to its holdings when its No. 2 Thompson, NE NW NW section 13, was completed for 1,200 bbls. daily production, and Smith Petroleum Co. No. 3 Reed, NE SE NE section 11, finished with a flow of 600 bbls. after it had been acidized.

A north pool surprise of the week came when Shine & Merchant No. 1 Johnson, NE SE NE section 15, came in with a 200-bbl. daily production. The well is two locations south of Fortney's test, at one time nearly on the brink of failure. The Johnson well was completed at 3,652 feet, and its success assures three offsets.

Rex Oil & Gas Co. also developed a 500-bbl. producer last week when its No. 4-A State, NE NE SE section 11, came in with a production of about 500 bbls. The well is in the midst of proved territory.

In the southeastern part of the Wicklund (north pool), Petroleum Investors No. 1 Thompson, NW NE NW section 13, was completed as a 250-bbl producer. The territory is semiproved. Central Michigan Oil Co. No. 1 Thompson, also in section 13, to the west of the Petroleum Investors well, was being completed as the week ended.

## Allegan County

Drilling activity continued to run high in Allegan County's new eight-well pool, but interest shifted to a wildcat strike some 20 miles south of the producing field, where the Flanigan & Kehlet Trust No. 1 Clair, SW NE SE section 29, logged 40 bbls. daily in the Upper Traverse stratum at a depth of 1,355 feet. At present the test is shut down, awaiting tankage. Water was reported cutting into the pay, and the well may not prove commercially valuable.

In the Salem Township field, where eight producers have jumped the Allegan field into prominence, Muskegon Oil Co. No. 2 Moomey, SW NE SE section 17, was treated with acid, and produced an estimated 1,300 bbls. No. 3 Moomey, NE NE SE, same section, and the No. 1 Berens, both the same company's projects, in section 17, were due to come in this week.

## Isabella County

One of the largest wells to be drilled in the Denver Township area of Isabella County developed the past week after a 3,000-gallon acid shot. The well is Schelling & Schrot No. 2 Varney, SW SE SW section 34, which showed an estimated 700 bbls. daily. A production of 40 bbls. natural flow was logged at 3,570 feet, and the unusual 3,000-gallon acid shot, requiring three hours and 64 bbls. of oil, was decided on. The larger flow resulted. Other activity in eastern Isabella included the following drilling activity Garfield Petroleum Co. No. 1 McKinnon, NW NW NE section 5, Vernon Township, drilling in the Traverse; Charles A. Ralph No. 1 Cope, SE SE NE section 9, Vernon Township, nearing the 2,000-foot marker; J. W. McIntosh No. 1 Epple, NE NE SE section 19,

*(Continued on Page 98)*

*Operators and drillers in the Ogemaw County field, Michigan, gathered at No. 3 T. and K. Izworski well, section 23-22n-1e, Ogemaw Township and county, which extended the field westward: W. J. Bernier, operator in Ogemaw and other central Michigan fields; W. E. Ross, his partner on the project, drilled as the Ross & Bernier No. 3 Izworski; M. J. Izworski celebrating its success; E. P. Trobert and William H. Ferguson, of Ross & Bernier*

# Canadian Fields

## Completions and Operations in Northwest and in Ontario

By VICTOR LAURISTON

CHATHAM, Ontario, June 26. — Canadian production of crude and natural gasoline in April established a new high monthly record of 188,014 bbls., according to official figures just issued. This compared with 176,657 bbls. in March and 107,748 in April, 1936. For the first four months of the current year the output was 659,655 bbls. or 45.1 per cent increase over the production of 454,731 bbls. in the same period last year.

New Brunswick production for April was 2,623 bbls. compared with 42 bbls. in March, while Ontario declined from 14,783 to 12,783 bbls. Alberta increased from 161,832 to 172,608 bbls. For the four months, New Brunswick dropped from 4,085 to 2,735 bbls. while Ontario increased from 53,311 to 53,988 bbls. and Alberta from 397,335 to 603,932 bbls.

### Turner Valley Acidization

In South Turner Valley, acidizing operations are being extended. Royalite Oil Co. No. 3 Sterling Pacific, LSD 13, section 33-18-2w5, after a second acid treatment has settled to approximately 270 bbls. a day compared with 85 bbls. before the first treatment. West Side Royalties No. 1, LSD 5, section 21-18-2w5, originally making around 225 bbls., has settled to 400 bbls. after one acid treatment.

Turner Valley Royalties No. 1, LSD 13, section 28-18-2w5, the pioneer west side crude producer, which came in last June with initial flow close to 900 bbls. a day, was treated with 5,000 gallons of acid, after clearing the tubing of wax. It increased from a settled production of 585 bbls. to around 2,200 bbls. production. Up to the end of May, natural production totaled 243,282½ bbls. with a gross revenue of $403,273.75, the well paying out in five and one-half months. Government royalties for 11½ months were $40,327.

Century Royalties No. 1, LSD 14, section 28-18-2w5, is running 2½-inch tubing to 6,100 feet and acidizing. Foundation Royalties No. 1, LSD 3, section 21-18-2w5, is testing production after acidizing. Natural flow was about 225 bbls. a day. Miracle Oils No. 2, section 5-19-2w5, is preparing for acid treatment.

Carleton Royalties No. 1, LSD 2, section 28-18-2w5, was given 100 shots in the casing to take crude production from the Dalhousie sand, and is testing. Naphtha production from the lime was about 20 bbls. a day. Sterling Royalties No. 1, section 33-18-2w5, with about 100 bbls. a day naphtha recovery from the lime, will be acidized or shot.

B. & B. Oil Co. No. 1, LSD 12, section 28-18-2w5, which came in February 3 on May 31 had produced 91,039 bbls. of crude with revenue grossing $156,052. Royalite Oil Co. No. 4 Sterling Pacific, LSD 4, section 33-18-2w5, which blew in March 15, had produced 85,157 bbls. up to June 15, averaging 979 bbls. a day.

### West Side Drilling

Three west side wells are drilling close to the lime, and will be completed within the next six weeks. Monarch Royalties No. 1, LSD 9, section 20-18-2w5, is below 6,324 feet after getting the Dalhousie sand at 6,215 feet, and will get the Madison lime within a few days. It will likely be the next completion, and if it gets production will extend the crude area almost a half mile to the west. It has logged satisfactorily with the crude producers. Royalite Oil Co. No. 5 Sterling Pacific, LSD 12, section 33-18-2w5, is below 6,142 feet. Richland Royalties No. 3, LSD 14, section 28-18-2w5, is below 5,500 feet and expected to get the lime around 5,700 feet. It is taking 30 to 40 bbls. a day of light crude from the Dalhousie sand while drilling.

In the West Central area, Brown Oil Corp. No. 3, LSD 15, section 19-19-2w5, has spudded.

In section 33-18-2w5, Royalite Oil Co. No. 6, LSD 5, just north of No. 4 producer, has spudded and is below 100 feet.

In section 32-18-2w5, National Petroleum Corp. No. 3 has been located in LSD 15, a half mile west of No. 3 Sterling Pacific producer. West Turner Petroleums No. 1, LSD 2, a quarter mile west of No. 4 Sterling Pacific producer, is ready to spud. Westflank No. 2, LSD 1-8, is moving rotary equipment from the Weymarn well at Pincher Creek and will likely spud in July.

In section 20-18-2w5, Spy Hill Royalties No. 1, LSD 16, is rigged waiting to spud. It will start with cable tools and finish with rotary. Royal Canadian Oils No. 1, LSD 15, is below 600 feet. Sunset Oils No. 1, LSD 10, is drilling open hole for 10-inch casing below 2,520 feet.

In section 16-18-2w5, Richwell Oil Co. No. 1, LSD 5, is below 1,000 feet.

In section 30-18-2w5, Okalta Oils No. 6, LSD 3, has cellar dug and will spud some time next month.

### North Turner Valley

In North Turner Valley, Home Oil Co. No. 1, LSD 8, section 33-20-3w5, is rigged and has laid 3-inch gas line to the Model wells.

### High River-Aldersyde

On the Cayley structure in the High River area of Turner Valley, Arca Development Corp. No. 1, NW section 24-18-1w5, has plugged off sulfur water encountered in the lower Madison and is testing production in the upper lime.

On the New Valley structure, northeast of Turner Valley, McLeod Oil Co. No. 1 is below 7,725 feet with the bailer bringing up considerable green crude from below the gas horizon at 7,602 feet. Control head has been installed and production test will probably be made after deepening a little farther. A strong show of crude, with potential production estimated 100 bbls. a day, was previously encountered in the cardium sand and the hole was deepened for gas to flow this production.

### Tests in the Foothills

In the Brazeau district, West Central Alberta, Home Oil Co. is preparing for structure tests to spud about the end of July, following a survey recently completed by the company's geologist, Dr. J. O. G. Sanderson of Calgary. The Brazeau district lies about 110 miles west of Red Deer, the structure extending north about 50 miles. The first work will be done near Chungo Creek, about 23 miles northwest of Nordegg. Contract has been let for a road from Nordegg to the field, work on which will start this month.

In the forest reserve area west of Olds, Hunter Valley Oil Co. No. 1 McLaren, LSD 12, section 13-31-10w5, is in a hard dark shale formation below 7,951 feet. It is now the deepest test in Alberta outside the Arca well near High River, and has not yet reached the Madison limestone, originally expected around 7,600 feet.

On the Moose dome, Moose Oils No. 1, LSD 8, section 29-22-6w5, is in the Devonian limestone below 903 feet after installing heavier equipment.

On the Highwood-Sinclair structure southwest of Turner Valley, South End Petroleums No. 1, LSD 6, section 36-18-3w5, is making new hole in the Fernie shales, with the lime expected in about 550 feet.

On the Mill Creek structure west of Pincher Creek, Weymarn Petroleums No. 2, LSD 5, section 7-6-1w5, is testing production.

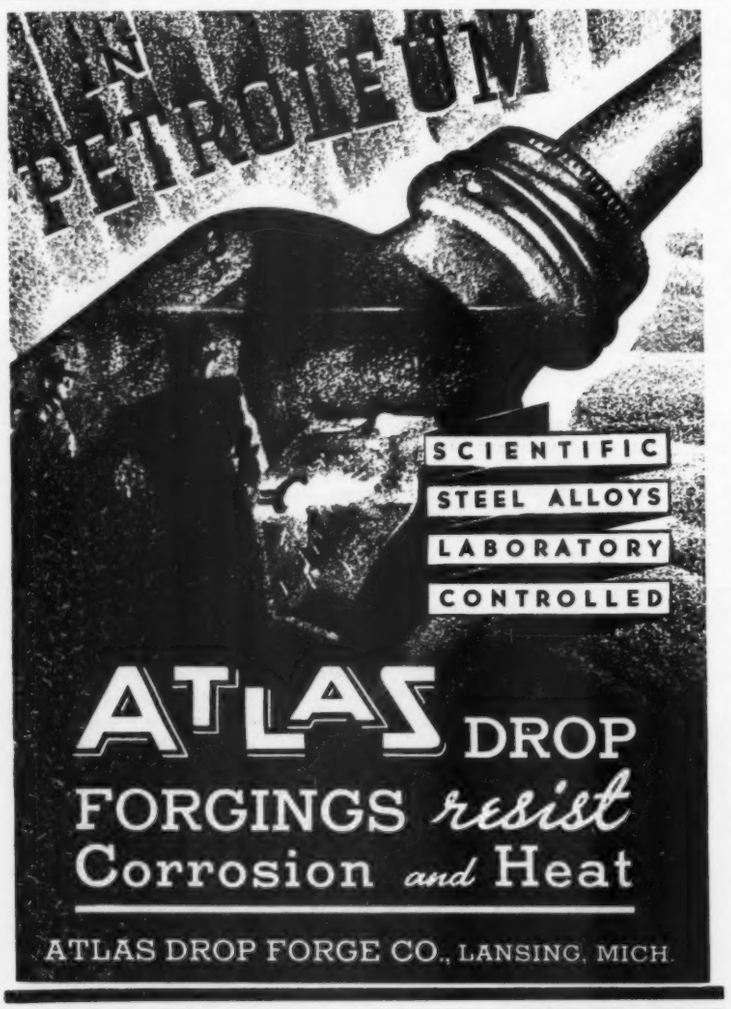
In the old Monarch field, 35 miles west of Olds and about 30 miles east of the Hunter Valley deep test, Windsor Petroleum Co., headed by J. W. Townshend, is preparing to drill. Dr. T. B. Williams of Calgary is making a survey of the structure preparatory to arranging a drilling program.

### Border Fields

In the Taber field, southern Alberta, Plains Petroleum Co. No. 2, LSD 11, section 25-9-17w4, got the Milk River sand at 760 feet, about 9 feet higher than in No. 1, and is resuming after cementing casing at 830 feet. Plains Petroleums No. 1 is deepening below 3,200 feet to test production from the second sand. Plains No. 3, section 26-9-17w4, is working on derrick. Taber Petroleums is drilling No. 1 structure test a mile northeast of White Ash mine and 3 miles north of Taber.

West of Lethbridge, Lethbridge Petro-

*(Continued on Page 97)*




William M. Barret, Inc.
Consulting Geophysicists
*Specializing in Magnetic Surveys*
Contracts accepted for domestic and foreign projects, using the most improved instrumental and interpretative technique.
GIDDENS-LANE BUILDING -:- SHREVEPORT, LA.

# WILDCAT OPERATIONS

## CALIFORNIA

### IMPORTANT WELLS AND NORTHERN CALIFORNIA WILDCATS

| Company, well and location— | S.T.R. | Depth | Status |
|---|---|---|---|
| Shell Oil, No. 1-22 Capitan, Santa Barbara Co. | 32- 5-30 | 2,880 | flow. 219 b.d. |
| Shell Oil, No. 1-24 Capitan, Santa Barbara Co. | 32- 5-30 | 1,146 | O.S. drlg. |
| Texas Co., No. 1 Careaga, Santa Barbara Co. | 1- 4-31 | 965 | sd. sh. drlg. |
| Hancock-Bush, No. 2-B Santa Maria, Santa Barbara | 25-10-34 | 2,935 | sd. sh. drlg. |
| Sed Oil, No. 1 Mills, Santa Maria, Santa Barbara Co. | 27-10-34 | 1,797 | sd. sh. drlg. |
| Union Oil, No. 3-M Santa Maria, Santa Barbara Co. | 30-10-33 | 3,800 | bailing |
| Union Oil, No. 1-R Santa Maria, Santa Barbara Co. | 21-10-34 | 4,579 | swab. 450 b.d. |
| Union Oil, No. 1-C Santa Maria, Santa Barbara Co. | 30-10-33 | 2,689 | sd. sh. drlg. |
| Union Oil, No. 19 Orcutt, Santa Barbara Co. | 26- 9-34 | 3,305 | sd. sh. drlg. |
| Pacific Western Oil, No. 1-H Santa Barbara Co. | 21-10-34 | 3,410 | sd. sh. drlg. |
| Rice Ranch Oil, No. 4 Orcutt, Santa Barbara Co. | 23- 9-34 | 4,300 | br. sh. drlg. |
| Valley Oil, No. 1 Casmalia, Santa Barbara Co. | 20- 9-34 | 2,340 | pump. water |
| 101 Oil, No. 1 Pt. Concepcion, Santa Barbara Co. | 35- 5-33 | 365 | will deepen |
| Hancock Oil, No. 2 Los Alamos, Santa Barbara Co. | 6- 7-32 | 2,296 | sd. sh. drlg. |
| Arnold Oil, No. 2 Los Alamos, Santa Barbara Co. | 8- 8-33 | 4,286 | br. sh. drlg. |
| Field Gasoline, No. 2-C Gato Ridge, Santa Barbara Co. | 4- 8-32 | 2,224 | sd. sh. drlg. |
| Petrol Corp., No. 43-A Gato Ridge, Santa Barbara Co. | 9- 8-32 | 3,888 | idle |
| Nine Springs Oil, No. 1 Los Olivos, Santa Barbara Co. | 9- 7-30 | 3,310 | bailing water |
| Oatman Mining, No. 1 Mesa, Santa Barbara Co. | 28- 4-27 | 2,002 | flow. water |
| Del Mar Oil, No. 1 Summerland, Santa Barbara Co. | 16- 4-26 | 1,604 | cleaning out |
| Texas Co., No. 129 Shiells, Ventura Co. | 4- 3-19 | 4,812 | redrlg. 2,605 |
| Union Oil, No. 16 Bardsdale, Ventura Co. | 12- 3-20 | 5,043 | sd. sh. drlg. |
| Condor Oil, No. 1 Sespe, Ventura Co. | 6- 4-19 | 1,987 | br. sh. drlg. |
| Ivers, H. A., No. 14 Star, Sespe, Ventura Co. | 1- 4-20 | 1,218 | sd. sh. drlg. |
| Topa Topa Oil, No. 2 Sespe, Ventura Co. | 33- 5-19 | 3,652 | rd. sd. drlg. |
| Speik Oil, No. 2 Sespe, Ventura Co. | 33- 5-19 | 2,650 | sd. sh. drlg. |
| Colima Oil, No. 2 Sespe, Ventura Co. | 25- 5-19 | 2,820 | O.S. drlg. |
| Pacific Western Oil, No. 9 Temescal, Ventura Co. | 3- 4-18 | 1,975 | sd. sh. drlg. |
| Vai, Giovani, No. 1 Ojai, Ventura Co. | 4- 4-21 | 487 | hd. sh. drlg. |
| Texas Co., No. 1 Saticoy, Ventura Co. | 31- 3-21 | 2,775 | sd. sh. drlg. |
| Continental Oil, No. 1 Red Mountain, Ventura Co. | 7- 3-23 | 7,912 | hd. sd. drlg. |
| Continental Oil, No. 7 San Miguelito, Ventura Co. | 23- 3-24 | 6,525 | O.S. drlg. |
| C. C. M. Oil, No. 2 Padre Canyon, Ventura Co. | 23- 3-23 | 6,465 | redrlg. 5,796 |
| Continental Oil, No. 3 Padre Canyon, Ventura Co. | 15- 3-24 | 7,291 | idle |
| C. C. M. Oil, No. 14 Rincon, Ventura Co. | 17- 3-24 | 2,615 | br. sh. drlg. |
| C. C. M. Oil, No. 15 Rincon, Ventura Co. | 17- 3-24 | 1,571 | sd. sh. drlg. |
| El Rio Oil, No. 1 Oxnard, Ventura Co. | 6- 1-21 | 3,000 | cleaning out |
| Tide Water A. O., No. 21 V.L.W., Ventura, Ventura | 24- 3-23 | 4,962 | sd. sh. drlg. |
| Tide Water A. O., No. 60 Lloyd, Ventura, Ventura | 27- 3-23 | 7,070 | flow. 55 b.d. |
| Tide Water A. O., No. 62 Lloyd, Ventura, Ventura | 27- 3-23 | 1,952 | sd. sh. drlg. |
| Tide Water A. O., No. 81 Lloyd, Ventura, Ventura | 27- 3-23 | 7,600 | redrlg. 7,359 |
| Tide Water A. O., No. 137 Lloyd, Ventura, Ventura | 27- 3-23 | 7,835 | cleaning out |
| Tide Water A. O., No. 18 Hartman, Ventura, Ventura | 22- 3-23 | 2,895 | sd. sh. drlg. |
| Shell Oil, No. 91 Taylor, Ventura, Ventura Co. | 30- 3-23 | 7,415 | sd. sh. drlg. |
| Shell Oil, No. 35 Gosnell, Ventura, Ventura Co. | 28- 3-23 | 8,950 | P.B. 8,612 |
| General Pet., No. 17 Barnard, Ventura, Ventura Co. | 23- 3-23 | 7,921 | hd. sh. drlg. |
| Den Petroleum, No. 1 Devils Den, Kern Co. | 20-25-19 | 4,276 | redrlg. |
| Texas Co., No. 11-9 Theta, Lost Hills, Kern Co. | 11-26-20 | 1,252 | pump. 115 b.d. |
| Texas Co., No. 2-32 Theta, Lost Hills, Kern Co. | 2-26-20 | 963 | sd. sh. drlg. |
| Amerada Pet., No. 1 Blackwell Corner, Kern Co. | 17-26-19 | 2,670 | reaming |
| East Puente Oil, No. 23-11 McKittrick, Kern Co. | 11-30-21 | 941 | sd. sh. drlg. |
| Seaboard Oil, No. 1 Wasco, Kern Co. | 26-27-24 | 9,570 | br. sh. drlg. |
| Belridge Oil, No. 3-35 North Belridge, Kern Co. | 35-27-20 | 8,090 | O.S. drlg. |
| Belridge Oil, No. 24-35 North Belridge, Kern Co. | 35-27-20 | 8,690 | flow. 2,223 b.d. |
| Belridge Oil, No. 61-26 North Belridge, Kern Co. | 26-27-20 | 3,391 | sd. sh. drlg. |
| Belridge Oil, No. 28-1 North Belridge, Kern Co. | 1-28-20 | 3,580 | sd. sh. drlg. |
| Continental Oil, No. 9 North Belridge, Kern Co. | 36-27-20 | 7,452 | hd. sh. drlg. |
| Tide Water Associated, No. 6 North Belridge, Kern | 34-27-20 | 7,451 | br. sh. drlg. |
| Texas Co., No. 1 Martin, North Belridge, Kern Co. | 22-27-20 | 5,440 | br. sh. drlg. |
| Santa Ynez Oil, No. 1 Temblor, Kern Co. | 36-29-20 | 1,187 | sd. sh. drlg. |
| Patton-Baldwin Oil, No. 1 Round Mountain, Kern Co. | 32-28-29 | 2,071 | gr. sd. drlg. |
| Honolulu Oil, No. 21 Round Mountain, Kern Co. | 20-28-29 | 1,933 | rig. to pump |
| Link Oil, No. 1 Caney, Round Mountain, Kern Co. | 30-28-29 | 1,577 | idle |
| Cal-Western Oil, No. 2-C.C., Round Mountain, Kern | 32-27-29 | 1,071 | sd. sh. drlg. |
| Shell Oil, No. 1 Estate, Round Mountain, Kern Co. | 16-28-29 | 1,888 | pump. 185 b.d. |
| Republic Pet., No. 2 Cal Tech, Kern Front, Kern Co | 24-28-27 | 1,775 | O.S. drlg. |
| McDonald & Dearin, No. 4 Carrie, Kern Front, Kern | 10-28-27 | 2,141 | sd. sh. drlg. |
| Apex Petroleum, No. 10-3 Kern Front, Kern Co. | 10-28-27 | 1,371 | sd. sh. drlg. |
| Associated Hold., No. 1-H Kern Front, Kern Co. | 11-28-27 | 420 | sd. sh. drlg. |
| Oil, Inc., No. 7-2 Kern Front, Kern Co. | 13-28-27 | 1,289 | P.B. 1,247 |
| General Pet., No. 53 Young, Kern Front, Kern Co. | 13-28-27 | 1,989 | tested wet |
| Barnhart & Morrow, No. 4 K.C.L., Kern Front, Kern | 11-28-27 | 1,978 | pump. 112 b.d. |
| California Star Oil, No. 10-80 Kern Front, Kern Co. | 22-27-27 | 2,255 | sd. sh. drlg. |
| Texas Co., No. 7 Lehman, Kern Front, Kern Co. | 23-28-27 | 2,125 | bailing |
| Shell Oil, No. 1 Bellview, Kern Co. | 31-29-27 | 5,025 | sd. sh. drlg. |
| Superior Oil, No. 2 Bakersfield, Kern Co. | 36-29-28 | 2,774 | swabbing |
| Palmer & Luse, No. 1 Kern River, Kern Co. | 10-28-28 | 392 | sd. sh. drlg. |
| Wilshire Oil, No. 1 F.P., Union Avenue, Kern Co. | 36-29-27 | 5,958 | dry; abd. |
| C. C. M. Oil, No. 1 Carter, Mount Poso, Kern Co. | 7-27-27 | 3,244 | reaming |
| Framac Oil, No. 1 Brown, Mount Poso, Kern Co. | 22-27-27 | 1,351 | fish. D.P. |
| Chevalier, J. J., No. 3 S.P., Mount Poso, Kern Co. | 3-27-28 | 1,475 | cleaning out |
| Vanguard Oil, No. 7 Baker, Mount Poso, Kern Co. | 33-27-28 | 1,770 | bailing |
| General Pet., No. 7 Heisen, Mount Poso, Kern Co. | 16-27-28 | 1,722 | O.S. drlg. |
| Shell Oil, No. 19 Security, Mount Poso, Kern Co. | 16-27-28 | 1,678 | pump. 447 b.d. |
| Shell Oil, No. 13 Vedder-Rall, Mount Poso, Kern Co. | 9-27-28 | 1,810 | O.S. drlg. |
| Banducci, L. J., No. 2-T Fruitvale, Kern Co. | 26-29-27 | 3,735 | cleaning out |
| Berman, A. B., No. 1 Fruitvale, Kern Co. | 23-29-27 | 2,685 | sd. sh. drlg. |
| Wilbur, V.R.G., No. 1 Fruitvale, Kern Co. | 22-29-27 | 3,893 | P.B. 3,835 |
| Simmel, L. C., No. 1 Fruitvale, Kern Co. | 23-29-27 | 2,196 | sd. sh. drlg. |
| Mohawk Pet., No. 4-23 K.C.L., Fruitvale, Kern Co. | 23-29-27 | 3,163 | P.B. 3,138 |
| Mesa Pet., No. 1-L Fruitvale, Kern Co. | 28-29-27 | 3,150 | hd. sd. drlg. |
| American Expl., No. 1-G Mountain View, Kern Co. | 18-30-29 | 4,792 | P.B. 4,722 |
| American Expl., No. 1-C Mountain View, Kern Co. | 18-30-29 | 4,505 | sd. sh. drlg. |
| Savoy Oil, No. 2-W Mountain View, Kern Co. | 34-30-29 | 5,044 | to abandon |
| Standard Oil, No. 5-M Mountain View, Kern Co. | 18-30-29 | 1,630 | sd. sh. drlg. |
| Tracy Drlg., No. 1-B Mountain View, Kern Co. | 19-30-29 | 5,165 | cleaning out |
| Petrol Prod., No. 1 Earl, Mountain View, Kern Co. | 4-31-29 | 1,641 | sd. sh. drlg. |
| Hogan Pet., No. 4 Symons, Mountain View, Kern Co. | 5-31-29 | 6,188 | cleaning out |
| Hogan Pet., No. 3 Bankline, Mountain View, Kern Co. | 4-31-29 | 5,648 | P.B. 5,424 |
| Hogan Pet., No. 10 Porter, Mountain View, Kern Co. | 29-30-29 | 2,971 | sd. sh. drlg. |
| Greer, P. H., No. 2 Perrel, Mountain View, Kern Co. | 9-31-29 | 5,650 | gr. sd. drlg. |
| Golden Bear Oil, No. 1 Edison, Mountain View, Kern | 12-30-29 | 1,095 | sd. sh. drlg. |
| Monterey Expl., No. 6 Duff, Edison, Kern Co. | 15-30-29 | 3,605 | P.B. 3,412 |
| Berree Oil, No. 6 Seale, Edison, Kern Co. | 5-30-29 | 800 | sd. sh. drlg. |
| Bacal Oil, No. 1 Brown, Edison, Kern Co. | 5-30-30 | 1,790 | sd. sh. drlg. |
| Cajalco Pet., No. 1 Brown, Edison, Kern Co. | 9-30-30 | 3,215 | gr. sd. drlg. |
| Metro Oil, No. 2 Edison, Kern Co. | 6-30-29 | 2,593 | P.B. 2,530 |
| East Edison Oil, No. 2 Edison, Kern Co. | 23-30-30 | 1,376 | idle |
| Arkelo Oil, No. 1 Lerdo, Kern Co. | 23-28-26 | 10,050 | fish. D.P. |
| Union Oil, No. 1-34 Rio Bravo, Kern Co. | 34-28-25 | 9,190 | br. sh. drlg. |
| Continental Oil, No. 1 Rosedale, Kern Co. | 12-29-26 | 9,400 | gr. sd. drlg. |
| Standard Oil, No. 11-4 KCL, Greeley, Kern Co. | 20-29-26 | 7,490 | sd. sh. drlg. |
| Standard Oil, No. 11-5 KCL, Greeley, Kern Co. | 20-29-26 | 7,800 | completing |
| Standard Oil, No. 11-6 KCL, Greeley, Kern Co. | 20-29-26 | 5,755 | sd. sh. drlg. |
| Standard Oil, No. 12-1 KCL, Greeley, Kern Co. | 30-29-26 | 8,370 | sd. sh. drlg. |
| Union Oil, No. 4 San Emidio, Kern Co. | 31-11-22 | 1,010 | br. sh. drlg. |
| Shell Oil, No. 21-14 Old River, Kern Co. | 14-30-25 | 8,615 | sd. sh. drlg. |
| Shell Oil, No. 58-29 Ten Section, Kern Co. | 29-30-26 | 8,041 | O.S. drlg. |
| Ohio Oil, No. 2-E Ten Section, Kern Co. | 6-30-26 | 8,300 | sd. sh. drlg. |
| C. C. M. Oil, No. 22-21 Midway-Sunset, Kern Co. | 28-32-23 | 1,175 | sd. sh. drlg. |
| C. C. M. Oil, No. 32-21 Midway-Sunset, Kern Co. | 21-32-23 | 1,854 | br. sh. drlg. |
| Pattiway Oil, No. 2 Midway-Sunset, Kern Co. | 12-11-24 | 1,584 | pump. 61 b.d. |
| Evans, H. B., No. 19 Midway-Sunset, Kern Co. | 35-32-23 | 671 | sd. sh. drlg. |
| Signal Oil, No. 5-W Midway-Sunset, Kern Co. | 8-11-23 | 2,915 | sd. sh. drlg. |
| Monticello Oil, No. 4 Midway-Sunset, Kern Co. | 27-31-22 | 783 | sd. sh. drlg. |
| Ethel D Oil, No. 43 Midway-Sunset, Kern Co. | 36-12-24 | 975 | cmtd. 920 |
| Standard Oil, No. 7-13-D Midway-Sunset, Kern Co. | 13-32-24 | 2,098 | sd. sh. drlg. |
| Standard Oil, No. 51-33-D Midway-Sunset, Kern Co. | 33-32-24 | 2,835 | completing |
| Standard Oil, No. 93-33-D Midway-Sunset, Kern Co. | 33-32-24 | 3,115 | sd. sh. drlg. |
| Oil Producers, Inc., No. 2 Midway-Sunset, Kern Co. | 7-11-23 | 2,727 | dry; abd. |
| Tide Water A. O., No. 5-P.C., Midway-Sunset, Kern | 32-31-23 | 3,450 | tested wet |
| Merritt-Annex Oil, No. 5 Fried, Midway-Sunset, Kern | 25-12-24 | 1,915 | sd. sh. drlg. |
| Valley Oil, No. 1 Midway-Sunset, Kern Co. | 18-32-23 | 3,172 | P.B. 2,780 |
| Texas Co., No. 22 Midway-Sunset, Kern Co. | 32-32-24 | 3,102 | rig. to pump |
| U. S. Pumping Equip., No. 5 Midway-Sunset, Kern | 12-11-24 | 1,665 | idle |
| General Pet., No. 49-B Midway-Sunset, Kern Co. | 24-31-23 | 4,495 | bailing |
| Quality Oil, No. 2 W.P., Midway-Sunset, Kern Co. | 27-32-23 | 2,187 | pump. 530 b.d. |
| Hoyt, Otis, No. 1 Midway-Sunset, Kern Co. | 7-11-23 | 1,832 | pump. 140 b.d. |
| Hoyt, Otis, No. 6 Midway-Sunset, Kern Co. | 7-11-23 | 214 | sd. sh. drlg. |
| Richfield Oil, No. 13-D Crampton, Elk Hills, Kern Co. | 1-31-24 | 1,031 | sd. sh. drlg. |

### KEY TO ABBREVIATIONS USED IN DRILLING REPORTS

Abd., abandoned.
Bldg., building.
B.D., barrels daily.
B.P., back pressure.
B.R., building rig.
Br. sh., brown shale.
B.S., basic sediment.
C.P., casing pressure.
Cd. or Crd., cored.
C.D., corrected depth.
Cg., coring.
C.L., center line.
Cmtd., cemented.
C.O., cleaning out.
Comp., completed.
Compr., compressor.
C.P., casing pressure, also cement through perforations.
Csg., casing.
D.D., drilling (or drilled) deeper.
Drlg. or Drg., drilling.
Drk. or Dk., derrick.
D.S., drill stem.
D.&A., dry and abandoned.
Fsg., fishing.
Gbo., gumbo.
G.I., gas injection.
Gr., gravity.
Gr. sd., gray sand.
Grn. sh., green shale.
Hd. sd., hard sand.
H.F.W., hole full of water.
I.P., initial production.
L., lime.
L.D.D., later drilled deeper.
Lnr., liner.
Loc., location.
M.I.M., moving in material.
M.I.R., moving in rig.
M.I.R.T., moving in rotary tools.
M.O.T., milling on tools.
O.I.H., oil in hole.
O.S., oil sand.
O.T.D., old total depth.
O.W.D.D., old well drilling deeper.
O.W.P.B., old well plugging back.
P.B., plugging or plugged back.
P.B.P., pulling big pipe.
P.L., pipe line.
P.L.O., pipe line oil.
Pmpg., pumping.
P.O.P., putting on pump.
P.P., pulled pipe.
Rd. sd., red sand.
Rd. sh., red shale.
Recmt., recemented.
Rmg., reaming.
Redrlg., redrilling.
Rng., running.
R.O.G., rig on ground.
R.P., rock pressure.
R.U., rigging up.
R.U.R., rigging up rotary.
R.U.R.T., rigging up rotary tools.
R.U.S.T., rigging up standard tools.
R.&T., rods and tubing.
S. or Sd., sand.
S.D., shut down.
Sd. sh., sandy shale.
Sdtr., or St., sidetracking.
S.D.P.L., shut down for pipe line.
S.D.W.O., shut down awaiting orders.
S.G., show gas.
Sh.&L., shale and lime.
S.I., shut in.
S.I.P., shut in, prorated.
S.L.M., steel line measurement.
S.O., show oil.
S.O.G.&W., show of oil, gas and water.
Spdg. or Spd., spudding.
S.R., straightreaming.
Stdg., standardizing (also standing).
S.W., salt water.
Swbg., swabbing.
T.A., temporarily abandoned.
Tbg., tubing.
T.D., total depth.
T.P., tubing pressure.
Tr., tract.
U.R., underreaming.
W.I.H., water in hole.
W.O., workover.
W.O.C. or W.O.C.S., waiting on cement to set.
W.P., working pressure.
W.S.O., water shutoff.
W.S.O.O.K., water shutoff O.K.
W.S.O.N.G., water shutoff no good.
W.S.R. or W.O.S.R., wait on standard rig.
Wtr., water.

| | | | |
|---|---|---|---|
| Reserve Oil & Gas, No. 33-4 Tejon, Kern Co. | 33-11-19 | 4,570 | recmtd. 4,541 |
| Hall-Baker Co., No. 11 Tejon, Kern Co. | 14-10-19 | 2,375 | dry; abd. |
| Wilshire Oil, No. 1 Tejon, Kern Co. | 5-10-19 | 4,841 | sd. sh. drlg. |
| Ohio Oil, No. 2 Tejon, Kern Co. | 21-11-19 | 9,230 | br. sh. drlg. |
| K. N. D. A., No. 4-18-J Kettleman North, Fresno Co. | 18-21-17 | 10,740 | hd. sh. drlg. |
| K. N. D. A., No. 67-28-J Kettleman North, Fresno Co. | 28-21-17 | 7,190 | sd. sh. drlg. |
| K. N. D. A., No. 78-28-J Kettleman North, Fresno Co. | 28-21-17 | 8,140 | swabbing |
| K. N. D. A., No. 2-34-J Kettleman North, Fresno Co. | 34-21-17 | 7,601 | gr. sd. drlg. |
| K. N. D., No. 32-34-J Kettleman North, Fresno Co. | 34-21-17 | 7,700 | gr. sd. drlg. |
| K. N. D. A., No. 41-4-P Kettleman North, Fresno Co. | 4-22-17 | 5,360 | sd. sh. drlg. |
| K. N. D. A., No. 61-4-P Kettleman North, Fresno Co. | 4-22-17 | 8,365 | sd. sh. drlg. |
| Standard Oil, No. 27-33-J Kettleman North, Fresno | 33-21-17 | 160 | sd. sh. drlg. |
| Standard Oil, No. 41-33-J Kettleman North, Fresno | 33-21-17 | 6,498 | sd. sh. drlg. |
| Standard Oil, No. 81-33-J Kettleman North, Fresno | 33-21-17 | 8,047 | cleaning out |
| Standard Oil, No. 4-3-P Kettleman North, Fresno | 3-22-17 | 6,252 | sd. sh. drlg. |
| Standard Oil, No. 78-3-P Kettleman North, Kings | 3-22-17 | 8,005 | sd. sh. drlg. |
| Temblor Oil, No. 1-B Kettleman Middle, Kings Co. | 25-23-18 | 6,152 | sd. sh. drlg. |
| Bisconer, R., No. 1 Cloud, Kings Co. | 11-24-20 | 1,050 | sd. sh. drlg. |
| Birch-Ranch Oil, No. 1 Orr, Kings Co. | 5-23-17 | 501 | sd. sh. drlg. |
| Clare, A. S., No. 1 Corcoran, Kings Co. | 30-20-22 | 992 | cleaning out |
| Temblor Oil, No. 1 Panorama, San Luis Obispo Co. | 22-32-21 | 1,715 | cmtd. 1,701 |
| Lewis, A. O., No. 1 Pecho, San Luis Obispo Co. | 34-20-10 | 2,774 | idle |
| Shell Oil, No. 1 Pieyto, Monterey Co. | 34-24-10 | 8,994 | P.B. 8,678 |
| Anderson, Amil, No. 1 Cholame, Monterey Co. | 15-24-14 | 1,060 | sd. sh. drlg. |
| California Oils, Inc., No. 1 Parkfield, Monterey Co. | 33-23-15 | 3,500 | resume work |
| Texas Co., No. 2 Eureka, Humboldt Co. | 22- 3-1 | 7,708 | fish. bit |
| Amerada Pet., No. 2 Marks, Rio Vista, Solano Co. | 22- 4-2 | 4,475 | 37,560 m.c.f. |
| Amerada Pet., No. 1 Triqueiro, Rio Vista, Solano Co. | 24- 4-2 | 2,541 | sd. sh. drlg. |
| Tide Water A. O., No. 1 Sargent, San Benito Co. | 5-12-4 | 6,921 | dry; abd. |
| Buttes Oilfields, Ltd., No. 1 Kent, Sutter Co. | 2-15-1 | 5,810 | fish. D.P. |
| Jennings, E. P., No. 1 Allensworth, Tulare Co. | 4-24-23 | 2,709 | cleaning out |
| Standard Oil, No. 1 Middle River, San Joaquin Co. | 24- 1-5 | 5,368 | form. test |
| Texas Co., No. 1 Roberts Island, San Joaquin Co. | 8- 1-6 | 1,951 | sd. sh. drlg. |
| Coast Expl., Well No. 1, Stanislaus Co. | 30- 4-9 | 4,455 | sd. sh. drlg. |

### IMPORTANT WELLS AND SOUTHERN CALIFORNIA WILDCATS

| Company, well and location— | S.T.R. | Depth | Status |
|---|---|---|---|
| Richfield Oil, No. 6 El Segundo, Los Angeles Co. | 18- 3-14 | 4,981 | sd. sh. drlg. |
| Richfield Oil, No. 1 Elsie, El Segundo, Los Angeles | 12- 3-15 | 5,392 | sd. sh. drlg. |
| Ohio Oil, No. 4 El Segundo, Los Angeles Co. | 7- 3-14 | 6,897 | sd. sh. drlg. |
| Ohio Oil, No. 5 El Segundo, Los Angeles Co. | 7- 3-14 | 6,990 | sd. sh. drlg. |
| Texas Co., No. 2 Security, El Segundo, Los Angeles | 18- 3-14 | 7,263 | pump. 260 b.d. |
| Standard Oil, No. 1 Refy, El Segundo, Los Angeles Co. | 13- 3-15 | 7,171 | flow. 984 b.d. |
| Republic Pet., No. 8 El Segundo, Los Angeles Co. | 18- 3-14 | 7,408 | pump. 250 b.d. |
| Douglas Oil, No. 9 Lawndale, Los Angeles Co. | 20- 3-14 | 6,365 | cleaning out |
| Calizoo Oil, No. 1 S.L.A., Los Angeles Co. | 16- 3-13 | 6,515 | hd. sd. drlg. |
| Weber-Butler Oil, No. 2 Torrance, Los Angeles Co. | 16- 4-14 | 4,528 | pump. 120 b.d. |
| Calmore Oil, No. 1 C.O.C., Torrance, Los Angeles Co. | 6- 4-14 | 3,278 | sd. sh. drlg. |
| C. C. M. Oil, No. 34-T Torrance, Los Angeles Co. | 16- 4-14 | 4,240 | br. sh. drlg. |
| McLaren & Assoc., No. 1 Palos Verdes, Los Angeles | 27- 4-14 | 3,992 | cmtd. 1,070 |
| K. & I. Corp., No. 25 Rubel, Inglewood, Los Angeles | 8- 2-14 | 1,671 | sd. sh. drlg. |
| Shell Oil, No. 90 Reyes, Dominguez, Los Angeles Co. | 33- 3-13 | 9,598 | P.B. 7,580 |
| Shell Oil, No. 91 Reyes, Dominguez, Los Angeles Co. | 33- 3-13 | 2,490 | sd. sh. drlg. |
| Union Oil, No. 50 Callender, Dominguez, Los Angeles | 33- 3-13 | 10,435 | cleaning out |
| Union Oil, No. 54 Callender, Dominguez, Los Angeles | 33- 3-13 | 3,781 | sd. sh. drlg. |
| Union Oil, No. 55 Callender, Dominguez, Los Angeles | 33- 3-13 | 6,273 | sd. sh. drlg. |
| Union Oil, No. 47 Hellman, Dominguez, Los Angeles | 33- 3-13 | 3,920 | sd. sh. drlg. |
| Barnsdall Oil, No. 16 O'Dea, Rosecrans, Los Angeles | 18- 3-13 | 4,496 | sd. sh. drlg. |
| Union Oil, No. 16 Rosecrans, Los Angeles Co. | 18- 3-13 | 7,560 | sd. sh. drlg. |
| Macrate, A. N., No. 2 Rosecrans, Los Angeles Co. | 17- 3-13 | 4,571 | sd. sh. drlg. |
| Universal Consd., No. 1-T Rosecrans, Los Angeles Co. | 18- 3-13 | 6,252 | sd. sh. drlg. |
| Bolsa Chica Oil, No. 1 Rosecrans, Los Angeles Co. | 20- 3-13 | 6,931 | sd. sh. drlg. |
| Union Oil, No. 18 D.R., Playa Del Rey, Los Angeles | 27- 2-15 | 5,868 | sd. sh. drlg. |
| Burt, A. G., No. 1 Newhall, Los Angeles Co. | 36- 4-17 | 1,720 | sd. sh. drlg. |
| Holbrook Pet., No. 1 Newhall, Los Angeles Co. | 28- 4-16 | 5,852 | sd. sh. drlg. |
| General Pet., No. 3 Ford, Wilmington, Los Angeles | 4- 5-13 | 5,355 | flow. 1,085 b.d. |
| General Pet., No. 6 Ford, Wilmington, Los Angeles | 4- 5-13 | 3,905 | flow. 1,920 b.d. |
| General Pet., No. 9 Ford, Wilmington, Los Angeles | 4- 5-13 | 3,180 | sd. sh. drlg. |
| General Pet., No. 10 Ford, Wilmington, Los Angeles | 4- 5-13 | 2,650 | sd. sh. drlg. |
| General Pet., No. 11 Ford, Wilmington, Los Angeles | 4- 5-13 | 3,100 | sd. sh. drlg. |
| General Pet., No. 2 Isco, Wilmington, Los Angeles | 4- 5-13 | 2,527 | sd. sh. drlg. |
| General Pet., No. 5-7 Wilmington, Los Angeles Co. | 4- 5-13 | 2,187 | sd. sh. drlg. |
| A. C. P. Oil, No. 1 Com., Wilmington, Los Angeles Co. | 33- 4-13 | 1,950 | sd. sh. drlg. |
| Bankline Oil, No. 2-C.Y., Wilmington, Los Angeles | 33- 4-13 | 3,225 | sd. sh. drlg. |
| Bankline Oil, No. 7-P.T., Wilmington, Los Angeles | 33- 4-13 | 2,975 | sd. sh. drlg. |
| Bankline Oil, No. 19-P.T., Wilmington, Los Angeles | 34- 4-13 | 1,981 | sd. sh. drlg. |
| Burnoel Oil, No. 1-E Wilmington, Los Angeles Co. | 33- 4-13 | 2,161 | sd. sh. drlg. |
| Black Gold Oil, No. 3 Wilmington, Los Angeles Co. | 32- 4-13 | 2,987 | sd. sh. drlg. |
| Crude Oil Drlg., No. 2-M Wilmington, Los Angeles | 33- 4-13 | 218 | sd. sh. drlg. |
| Dunlap, D. D., No. 2 Wilmington, Los Angeles Co. | 32- 4-13 | 2,951 | sd. sh. drlg. |
| Graham-Loftus Oil, No. 1-P Wilmington, Los Angeles | 33- 4-13 | 3,310 | sd. sh. drlg. |
| Hall, Inc., No. 15-7 Wilmington, Los Angeles Co. | 32- 4-13 | 3,650 | flow. 190 b.d. |
| Hughes, W., No. 1 Wilmington, Los Angeles Co. | 33- 4-13 | 1,971 | sd. sh. drlg. |
| Jergins Trust, No. 2 Wilmington, Los Angeles Co. | 34- 4-13 | 3,469 | flow. 250 b.d. |
| Jergins Trust, No. 6 Wilmington, Los Angeles Co. | 34- 4-13 | 3,251 | redrlg. 3,075 |
| Jergins Trust, No. 12 Wilmington, Los Angeles Co. | 34- 4-13 | 3,425 | flow. 515 b.d. |
| Las Vegas L. & W., No. 1 Wilmington, Los Angeles | 4- 5-13 | 2,492 | sd. sh. drlg. |
| Leal, G. V., No. 2 Wilmington, Los Angeles Co. | 5- 5-13 | 2,550 | sd. sh. drlg. |
| Macmillan Pet., No. 2-H Wilmington, Los Angeles Co. | 33- 4-13 | 2,610 | sd. sh. drlg. |
| Olympic Ref., No. 2 fee, Wilmington, Los Angeles | 33- 4-13 | 3,412 | sd. sh. drlg. |
| Pac. Western, No. 1 Thiele, Wilmington, Los Angeles | 33- 4-13 | 2,290 | sd. sh. drlg. |
| Pac. Western, No. 1 Rush, Wilmington, Los Angeles | 33- 4-13 | 2,573 | sd. sh. drlg. |
| Royalty Service, No. 1-A-SF Wilmington, Los Angeles | 33- 4-13 | 2,630 | sd. sh. drlg. |
| Royalty Service, No. 2-B-N Wilmington, Los Angeles | 33- 4-13 | 3,664 | flow. 205 b.d. |
| Royalty Service, No. 5-B-N Wilmington, Los Angeles | 33- 4-13 | 2,959 | sd. sh. drlg. |
| Royalty Service, No. 6-B-N Wilmington, Los Angeles | 33- 4-13 | 2,937 | sd. sh. drlg. |
| Royalty Service, No. 16-5-1 Wilmington, Los Angeles | 32- 4-13 | 1,521 | sd. sh. drlg. |
| Selegna Eastern, No. 5 Wilmington, Los Angeles Co. | 33- 4-13 | 2,600 | sd. sh. drlg. |
| Sovereign Oil, No. 4 Wilmington, Los Angeles Co. | 33- 4-13 | 3,311 | sd. sh. drlg. |
| Union Pacific, No. 13 Wilmington, Los Angeles Co. | 4- 5-13 | 3,840 | flow. 1,114 b.d. |
| Union Pacific, No. 16 Wilmington, Los Angeles Co. | 34- 4-13 | 2,875 | sd. sh. drlg. |
| Union Pacific, No. 23 Wilmington, Los Angeles Co. | 4- 5-13 | 2,845 | sd. sh. drlg. |
| Union Pacific, No. 25 Wilmington, Los Angeles Co. | 33- 4-13 | 2,414 | sd. sh. drlg. |
| Union Pacific, No. 26 Wilmington, Los Angeles Co. | 33- 4-13 | 3,476 | flow. 1,440 b.d. |
| Union Pacific, No. 29 Wilmington, Los Angeles Co. | 4- 5-13 | 1,942 | sd. sh. drlg. |
| Union Pacific, No. 30 Wilmington, Los Angeles Co. | 33- 4-13 | 3,145 | flow. 639 b.d. |
| Union Pacific, No. 31 Wilmington, Los Angeles Co. | 34- 4-13 | 2,164 | sd. sh. drlg. |
| Union Pacific, No. 34 Wilmington, Los Angeles Co. | 3- 5-13 | 3,120 | flow. 2,240 b.d. |
| Union Pacific, No. 1-C Wilmington, Los Angeles Co. | 33- 4-13 | 2,897 | sd. sh. drlg. |
| Sunset Oil, No. 1 Manhattan, Los Angeles Co. | 19- 3-14 | 5,741 | resume work |
| Julian, C. A., No. 1 Koch, Walnut, Los Angeles Co. | 5- 2-9 | 1,863 | redrlg. 1,751 |
| Richfield Oil, No. 2 Ciocca, Montebello, Los Angeles | 5- 2-11 | 4,915 | sd. sh. drlg. |
| Richfield Oil, No. 1 Estrada, Montebello, Los Angeles | 5- 2-11 | 5,657 | sd. sh. drlg. |
| Texas Co., No. 17 Baldwin, Montebello, Los Angeles | 6- 2-11 | 6,142 | sd. sh. drlg. |
| Universal Consd., No. 1-F Montebello, Los Angeles | 5- 2-11 | 5,828 | test. W.S.O. |
| Texas Co., No. 21-F Long Beach, Los Angeles Co. | 19- 4-12 | 4,750 | bailing |
| Texas Co., No. 3 Flower, Long Beach, Los Angeles | 19- 4-12 | 3,343 | sd. sh. drlg. |
| Mitchell, A. D., No. 3 Plymouth, L. Beach, L. Angeles | 19- 4-12 | 3,240 | P.B. 2,070 |
| Shell Oil, No. 14 Cresson, Long Beach, Los Angeles | 19- 4-12 | 1,072 | sd. sh. drlg. |
| Jergins Trust, No. 29-M Long Beach, Los Angeles Co. | 19- 4-12 | 3,005 | pump. 180 b.d. |
| Richfield Oil, No. 5 Frye, Long Beach, Los Angeles | 19- 4-12 | 3,595 | reaming |
| Coastal Oil & Gas, No. 1 Signal, L. Beach, L. Angeles | 19- 4-12 | 2,295 | sd. sh. drlg. |
| General Pet., No. 27 Santa Fe Springs, Los Angeles | 5- 3-11 | 4,796 | cmtd. 4,796 |
| Union Oil, No. 100 Santa Fe Springs, Los Angeles Co. | 6- 3-11 | 10,789 | fish. D.P. |
| Wales Pet., No. 1-H Monterey Park, Los Angeles Co. | 26- 1-12 | 1,461 | sd. sh. drlg. |
| Standard Oil, No. 28 S.G., Seal Beach, Orange Co. | 11- 5-12 | 6,530 | testing |
| Tide Water A. O., No. 16-B Seal Beach, Orange Co. | 11- 5-12 | 5,207 | sd. sh. drlg. |
| Lucky Strike Oil, No. 8 Huntington, Orange Co. | 2- 6-11 | 2,700 | bailing |
| Tide Water A. O., No. 55 M.K., Huntington, Orange | 2- 6-11 | 3,615 | P.B. 3,597 |
| West American, No. 14 Huntington, Orange Co. | 34- 5-11 | 4,721 | pump. 100 b.d. |
| W. P. R. Oil, No. 3 Huntington, Orange Co. | 35- 5-11 | 4,671 | sd. sh. drlg. |
| Orco Oil, No. 5 Huntington, Orange Co. | 2- 6-11 | 4,697 | redrlg. 4,475 |
| Standard Oil, No. 14 Thomson, Huntington, Orange | 12- 6-11 | 3,820 | cmtd. 3,775 |
| Commander Oil, No. 1 Newport, Orange Co. | 29- 6-10 | 7,905 | fish. D.P. |
| Shell Oil, No. 4-1 Columbia, Olinda, Orange Co. | 9- 3-9 | 3,295 | sd. sh. drlg. |
| Cox, M. A., No. 1 East Coyote, Orange Co. | 15- 3-10 | 5,450 | cmtd. 5,450 |
| Bartholomae Oil, No. 4 East Coyote, Orange Co. | 22- 3-10 | 5,056 | reaming |
| Dolicia Oil, No. 3 A.U.W., East Coyote, Orange Co. | 24- 3-10 | 1,591 | sd. sh. drlg. |
| Kelly, Thomas, No. 11 East Coyote, Orange Co. | 24- 3-10 | 3,725 | pump. water |
| Union Oil, No. 20 Hole, East Coyote, Orange Co. | 22- 3-10 | 5,371 | fish. D.P. |
| Standard Oil, No. 2-10 East Coyote, Orange Co. | 22- 3-10 | 4,800 | test. W.S.O. |
| Standard Oil, No. 2-25 Kraemer, Richfield, Orange | 29- 3-9 | 3,929 | reaming |
| Arrowhead Oil, No. 1-B Richfield, Orange Co. | 29- 3-9 | 3,435 | rig. to pump |
| Bachman Pet., No. 1-K Richfield, Orange Co. | 29- 3-9 | 4,625 | bailing water |
| Joseph, Arthur, No. 1 Richfield, Orange Co. | 29- 3-9 | 3,740 | P.B. 3,660 |
| Union Oil, No. 10 Morse, Richfield, Orange Co. | 29- 3-9 | 3,300 | sd. sh. drlg. |
| Union Oil, No. 14 Stern, Richfield, Orange Co. | 33- 3-9 | 1,720 | sd. sh. drlg. |
| Richfield Consd. Oil, No. 1 Yorba, Orange Co. | 22- 3-9 | 1,689 | sd. sh. drlg. |
| Signet Oil, No. 1 Yorba, Orange Co. | 21- 3-9 | 1,797 | sd. sh. drlg. |
| West American Oil, No. 1 Tustin, Orange Co. | 14- 5-9 | 4,841 | hd. sd. drlg. |

# KANSAS

Week Ending June 26 (Descriptions are East unless marked otherwise)

**Barber County**

**Barbara Oil Co. No. 1-27 Holmes, C NW NW sec. 27-33-13w. Chat 4,488 ft.; K.C. 3,980 ft.; drlg. 4,523 ft.**

**Pryor & Lockhart No. 1 Gant, C SE sec. 7-31-13w. Viola 4,435-38 ft.; S.&W. 90 B.O. in 1st 24 hrs.; swbd. 110 B.O. 2nd 24 hrs.**

**W. I. Southern, Inc., No. 1 Davis, SE SE NE sec. 24-34-15w. Skd. rig 24 ft. W; drlg. 675 ft.**

**Barton County**

**S. E. Bailey No. 1 Hammeke, NE NE SW sec. 12-18-12w. Drlg. 3,190 ft.**

**J. B. Hanna No. 1 Luce, SW cor. sec. 21-20-13w. Spd.**

**Sam Murphy No. 1 Beck, NE cor. sec. 17-17-12w. Spud and S.D.**

**Republic Nat. Gas Co. and Continental Oil Co. No. 1 Moeder, NE NE SW sec. 25-17-13w. Topeka 2,695 ft.; drlg. 2,-895 ft.**

**Shell Pet Corp. No. 1 Schneider, CNL S½ SE sec. 12-16-14w. Topeka 2,784 ft.; K.C. 3,098 ft.; cd. sat. 3,103-13 ft.; cd. 3,285-90 ft.; S.S.O.**

**Stanolind No. 1 Schartz, NW cor. sec. 33-19-11w. Drlg. 2,692 ft.**

**Butler County**

**Kahn et al No. 1-A Madden, SW SW NE sec. 27-23-4. K.C. 2,065 ft.; T.D. 2,212 ft.; pot. 30 B.O. with 60 B.W.**

**Simpson Oil Co. et al No. 1-A Dennis, NE NE SW sec. 15-26-6. Set 10-in. 1,710 ft.; drlg. 1,982 ft.**

**Maurer & Saco Oil Co. No. 1 Connell, NE NE SW sec. 27-29-5e. Drlg. 1,325 ft.**

**Chautauqua County**

**C. L. Brosius et al No. 1 Garrett, NW SW NW sec. 26-32-11. Drlg. 843 ft.**

**Buffington and Cohen No. 1-A Hayes, SE NE SE sec. 10-33-13. Miss. 1,525 ft.; Sil. 1,795-1,808 ft.; D.&A.**

**Robinson et al. No. 1 Foster, SW cor. sec. 6-33-12. S.O.&G. 1,780 ft.; drlg. 1,810 ft.**

**Cowley County**

**B. B. Blair et al No. 1 Miller, NE NW SW sec. 14-32-5. Set 6-in. 2,955 ft.; drlg. 3,-015 ft.**

**McCoy et al No. 1 Anderson, SE NW NE sec. 34-34-6. Set 6-in. 2,440 ft.; drlg. 2,610 ft.**

**Palmer et al No. 1 Ogrosky, SE SE NW sec. 31-32-5. Drlg. 2,730 ft.**

**Trees Oil Co. No. 1 Hornbeck, NW cor. sec. 5-33-4. Set 10-in. 1,260 ft.; drlg. 1,750 ft.**

**Tuisa Oil Co. et al No. 1 Dillon, NW NW NE sec. 28-34-3. Layton 2,623-2,800 ft.; Chat 3,375-96 ft., T.D.; D.&A.**

**E. Wakefield No. 1 Powers, NW SW NW sec. 8-32-6. Drlg. 360 ft.**

**Elk County**

**G. T. Berry No. 1 Zimmerman, SW NE SE sec. 15-30-10. T.D. 2,031 ft.; D.&A.**

**Morgan et al No. 1 Cook, NW cor. sec. 29-30-12. Drlg. 563 ft.**

**Republic Nat. Gas Co. No. 1 Glasscock, SE NE SW sec. 19-31-11. T.D. 2,012 ft.; C.O.**

**Tyrrell No. 1 Sellars, SE cor. sec. 11-31-9. O.W.D.D.; Miss. 2,300-10 ft.; est. 10 B.O.**

**Ellis County**

**Austin Drlg. Co. No. 1 Karlin, NW cor. sec. 13-12-18w. R.U.**

**Billings No. 1 Smith, SE SE NW sec. 14-12-16w. Sil. 3,356 ft.; first oil 3,360-64 ft.; T.D. 3,369 ft.; S. 6 B.O.P.H. for 12 hrs.**

**J. J. Muth No. 1 Penney, NW SE SE sec. 29-14-18w. S.D. 315 ft.**

**Vickers Pet. Co. et al No. 1 Parker, C N½ NE NW sec. 35-11-16w. Set 15-in. at 360 ft.; S.D. 390 ft.**

**Earl Wakefield et al No. 1 Burnett, NW NW NE sec. 1-11-18w. Anhy. 1,310 ft.; drlg. 1,380 ft.**

**Greenwood County**

**Ward McGinnis et al No. 1 Henly Estate, SW cor. sec. 25-25-9. T.D. 2,234 ft.; H. F.W.**

**Western Kansas O. & R. Co. No. 1 Taylor, SE SE SW sec. 6-27-12. Fsg. 500 ft.**

**Hamilton County**

**Denver Prod. & Ref. Co. No. 1 Porter, SW SW NE sec. 30-25-41w. Fsg. 4,-390 ft.**

**Harper County**

**Magnolia Pet. Co. No. 1 Freeman, SE NW SW sec. 3-31-6w. Set 15-in. 360 ft.; W. O.C.**

**Harvey County**

**Simpson & Noble et al No. 1 Pierce, SW SE NE sec. 25-22-2w. Drlg. 2,660 ft.**

**Kearny County**

**J. L. Murphy No. 1 Masonic Home, C NW sec. 1-26-36w. T.D. 519 ft.; fsg.**

**McPherson County**

**C. E. Ash Drilling Co. No. 1 Broman, NE NE NW sec. 19-17-4w. Rig.**

**Bradley Bros. No. 1 Barnholt, SW SW SE sec. 30-30-5w. U.R. 6-in. 3,260 ft.**

**Fred C. Frank et al No. 1 Doles, SE NW NE sec. 12-19-1w. C.O. 1,403 ft.**

**Tom Palmer et al No. 1 Regier, SE NE NW sec. 13-21s-1w. Chat 2,978 ft.; Misener 3,411½ ft.; Hunton 3,412 ft.; T.D. 3,438 ft.; D.&A.**

**Smith et al No. 1 Larson, NW NW SW sec. 35-18-5w. Set 8-in. to 2,913 ft.; drlg. 2,980 ft.**

**Wamhoff et al No. 1 Nuse, SE NE SW sec. 18-18-4w. T.D. 672 ft.; skid rig 12 ft. E.; spd.**

**Mitchell County**

**Geo. Siedhoff et al No. 1 Greiss, SW SW SE sec. 16-8-10w. U.R. 6-in. csg. to 3,-502 ft.**

**Ness County**

**Jones & Lane No. 1 Page Milling Co., SE SE NW sec. 36-18-26w. Spd.**

**Newton Dev. Co. No. 1 Tenny, NW NW SE sec. 19-18-25w. Set 6-in. 4,333 ft.; T.D. 4,387 ft.; 2,700 ft. O.I.H. in 30 hrs.; acd.; S. 234 B.O. in 4½ hrs.; dpnd. to 4,395 ft.; no increase.**

**Pawnee County**

**Simpson Oil Co. No. 1 Hewson, SE SE SW sec. 13-21-17w. Anhy. 1,035 ft.; Topeka 3,115 ft.; drlg. 3,422 ft.**

**Pratt County**

**Atlantic Ref. Co. et al No. 1 Runyon, SW NW NE sec. 11-27-13w. K.C. 3,735 ft.; cd. 3,922-29 ft., T.D.; drlg. cmt.**

**Reno County**

**Carter Oil Co. et al No. 1 Bontrager, C E½ NE NE sec. 26-24-5w. Drlg. 2,474 ft.**

**Imo O. & G. Co. and others No. 1 Watkins, SE cor. sec. 14-22-7w. Drlg. 1,700 ft.**

**Rice County**

**Bell O. & G. Co. et al No. 1 Wilkins, NW NW NE sec. 23-21-9w. Lansing 3,030 ft.; circ. 3,350 ft.**

**Comanche Oil Co. No. 1 Cramm, SW SW SE sec. 15-19-9w. Pay 2,946-47 ft.; 1,-800 ft. O.I.H. 1¾ hrs.; shut in; F. 67 B.O. 40 min.; quit flwg.**

**Gillispie et al No. 1 Strong, NE NE NW sec. 9-18s-8w. R.U.**

**John Hanna et al No. 1 Marshall, NE NW NW sec. 30-18s-8w. Spd.**

**Hipple et al No. 1 Wernet, NE NE NW sec. 11-20-6w. Drlg. 3,035 ft.**

**H. V. Holland et al No. 1 Brothers, SE cor. sec. 12-21-7w. Drlg. 1,050 ft.**

**Fred Phillips et al No. 1 Hubenett, SW NW SW sec. 23-20-6w. Set 5-in. to 3,-334 ft.; W.O.C.**

**C. E. W. Skiles et al No. 1 Heimer, NW NW NE sec. 7-19-18w. K.C. 2,904 ft.; set 8-in. 2,906 ft.; drlg. 3,040 ft.**

Union Oil & Refining Co. et al No. 1 Baker, SW SW NE sec. 33-20-6w. Simp. 3,765 ft.; Sil. 3,840-55 ft.; D.&A.
W. E. Witt et al No. 1 Fair, NW SE SE sec. 4-22-8w. Fsg. 2,345 ft.

**Rooks County**

Basin Oil Co. No. 1 Baxa, NE cor. sec. 23-9-17w. S.D. 3,630 ft.
Brunson Drlg. Co. et al No. 1 Casey, SE SE NE sec. 22-9s-16w. Set 5-in. 3,555 ft.; Cong. 3,570 ft.; drlg. 3,647 ft.
C. R. Craft et al No. 1 Ziegler, NE NE SW sec. 8-10-16w. Topeka 2,850-60 ft.; R.U. S.T.
Graham et al No. 1 Fike, SW cor. sec. 9-9-17w. S.D. 3,326 ft.
S. C. Hoei et al No. 1 Ives, SW SW NE sec. 11-7-18w. Set 8-in. 2,450 ft.; drlg. 2,675 ft.
J. H. Lester No. 1 Methene, SE SE NE sec. 29-10-20w. Fsg. 3,818 ft.

**Rush County**

Carter Oil Co. et al No. 1 Brosch, C N½ N½ SE sec. 21-18-16w. G.W. 3,611 ft.; Gran. 3,612-14 ft.; S.D.O.
Crawford et al No. 1 Jones, NW cor. sec. 35-17-16w. Rig.
Duwe & Brouk No. 1 Lebsack, SE SE NE sec. 13-16-16w. K.C. 3,194 ft.; S.S.O. 3,-215 ft.; good S.O. 3,275-80 ft.; U.R. 6-in.
S. A. Murphy et al No. 1 Roth, NW NW SW sec. 21-16-18w. Set 7-in. 2,698 ft.; drlg. 3,033 ft.
Westgate-Greenland Oil Co. et al No. 1 Greenwalt, NW NW NE sec. 19-19-16w. T.D. 4,017 ft.; P.B. 3,777 ft.

**Russell County**

Aylward et al No. 1 Jones SE SE NW sec. 23-14-13w. Set 5-in. 3,180 ft.; H.F.W. 3,230 ft.
Billings et al No. 1 Boxberger, NE NE SE sec. 21-14-14w. Anhy. 845 ft.; K.C. 3,-008 ft.; S.O. 3,030-35 ft.; T.D. 3,055 ft.; W.O.C.
Boyle & Grossman No. 1 Deines, SE SE SW sec. 36-15-15w. Sil. 3,451 ft.; H.F.W. 3,471-76 ft.; T.D. 3,179 ft.
Boyle & Grossman No. 1 Steinert Est., NE SE NW sec. 34-15-15w. S.D. 2,835 ft.
Winkler & Koch No. 1 Jones, SE SE NW sec. 22-14-13w. Sil. 3,180 ft.; S.D.O.

**Scott County**

Olson Drlg. Co. et al No. 1 Nolan, NW NE sec. 13-19-33w. K.C. L. 4,106 ft.; fsg. 4,792 ft.

**Sedgwick County**

Roxana Drlg. Co. et al No. 1 Woodman, SW NW SW sec. 26-26-1w. S.D. 2,469 ft.
Ryan Cons. Co. et al No. 1 Williams, NW NW SE sec. 17-25-2w. Topeka 1,970 ft.; Lansing 2,575 ft.; drlg. 2,650 ft.
E. B. Shawver No. 1 Furman, SW NE SE sec. 24-29-3w. Rng. 8-in. 2,860 ft.

**Stafford County**

Atlantic Ref. Co. No. 1 Kachelman, SE NW NW sec. 13-25-14w. Sil. 4,324 ft.; S.W. 4,324-33 ft.; drlg. ahead.
Rose Spring Drlg. Co. et al No. 1 Gray, NW cor. sec. 11-24-13w. K. C. 3,525 ft.; drlg. 3,760 ft.

**Sumner County**

John Burton et al No. 1 Springate, NE NE SW sec. 30-33-2e. S.D. 91 ft.
Faulkner et al No. 1 Nevitt, NE NW NE sec. 36-32-2e. P.B. 3,570 ft. to 2,782 ft.; pmpd. 2½ B.O. and 2½ B.W.P.H.
Glimac Oil Co. et al No. 1 Proud, SW SE SE sec. 33-30-1w. Wilcox 3,968 ft.; inc. wtr. 3,990 ft.; drlg. 4,018 ft.
Graham et al No. 1 Dawson, NW NW NW sec. 4-33-2w. Base Miss. 4,250 ft.; S.D. 4,255 ft.
Texas Co. No. 1 Harper, NE SW SE sec. 9-20-3w. Sil. 4,369 ft.; 6-in. csg. 4,381 ft.; T.D. 4,390 ft.; 2,000 ft. W.I.H.; P.B. to 3,898 ft.; D.&A.

**Trego County**

W. I. Southern, Inc., No. 1 Latimer, NW NW SE sec. 19-15-22w. H.F.W. 3,989-96 ft.; set 7-in. to 4,048 ft.; C.O. 4,051 ft.
F. L. Thorn et al No. 1 Dix, SE SE SW sec. 31-14-24w. Drlg. 560 ft.
Turner et al No. 1 Rogers, C SW sec. 3-15-23w. Set 10-in. 245 ft.; W.O.C.

**Woodson County**

M. B. Allen No. 1 Flack, NE NE NW sec. 1-26-14. Sd. 1,313-42 ft.; T.D. 2,300,000 ft. gas.
B. & B. Oil Co. No. 1 Lockard, NW NW NE sec. 2-26-13e. Drlg. 650 ft.
Morris et al No. 1 Koening, SE SE NW sec. 35-24-15. Drlg. 1,050 ft.
Fred Rapp No. 1 Houghland, NW NW SE sec. 2-25-15. Drlg. 600 ft.

# OKLAHOMA

Week Ending June 26

## NORTHERN OKLAHOMA

**Alfalfa County**

Olson Drlg. Co. et al No. 1 Acre, C SW NE sec. 14-24-11w. O.W.P.B.; fsg. 4,-000 ft.

**Beckham County**

Mid-American Oil Co. No. 1-A Biscoe, SW cor. sec. 28-8-22w. Drlg. 1,986 ft. in dolo.

**Caddo County**

Clyde Becker et al No. 1 Pharris, SE SE NW sec. 24-6-12w. Drlg. 5,050 ft.

**Cleveland County**

W. R. Hollenbeck No. 1 Norman, NW NW NE sec. 17-9-2w. T.D. 7,178 ft.; D.P. stuck.

**Creek County**

M. W. Mosier et al No. 1 Holcomb, SE SW NW sec. 19-18-8. C.O. at 2,963 ft.; T.D.

**Garfield County**

Ohio Oil Co. No. 1 State, SW cor. sec. 13-23-3w. Per. 4,680-84 ft.; 4,000 ft. S.W. I.H. in 40 min.; P.B. 4,570 ft.; perftg.

**Garvin County**

Carter Oil Co. No. 1 Potts, C E½ SE NW sec. 36-1n-3w. T.D. 542 ft.; off 5%; P.B. 431 ft.; W.O.C.; drlg. new hole 532 ft.

**Grady County**

Gulf Oil Corp. No. 1 Thomas, SW NW NW sec. 14-4-5w. Drlg. 1,670 ft.

**Grant County**

Carter Oil Co. et al No. 1 Crisman, C W½ SW NW sec. 16-25-3w. Oread 2,870 ft.; drlg. 3,058 ft.
Carter Oil Co. et al No. 1 Kolarik, NW SW sec. 4-26-5w. Tonkawa 3,680 ft.; drlg. 4,322 ft.; Oread 3,180 ft.

**Haskell County**

Continental Oil Co. No. 1 Ferguson, SW SE NE sec. 33-8-20. T.D. 5,322 ft. in Atoka; lost circ.

**Hughes County**

C. E. Beal No. 1 Eason, NE NE NW sec. 7-9-11. Wapa. 2,983 ft.; Cromwell 3,017-35 ft., S.W.; S.O. 3,048-51 ft.
Carter Oil Co. No. 1 Hamilton, C W½ NE SW sec. 33-4-9. Sylvan 5,474 ft.; drlg. 5,885 ft.
E. H. Moore, Inc., No. 1 Buck, NW SW SW sec. 21-8-10. Set 8-in. csg. 2,807 ft.; drlg. 2,888 ft.
Moroney & Healey No. 1 Field, C NW SW sec. 11-9-11. T.D. 2,413 ft.; H.F.W.; rng. 8-in.

**Kay County**

Higdon et al No. 1 Nieman, NE NW NE sec. 9-26-3e. T.D. 519 ft.; 50,000 ft. gas; comp.

**Kiowa County**

Kiowa Oil Corp. No. 1 Finder, C SW NE sec. 4-6-20w. G.W. 725 ft.; S.O.; drlg. 862 ft.

**Latimer County**

Clark Drlg. Co. et al No. 1 Wilson, C SE SE sec. 15-5-18. T.D. 6,515 ft. in Atoka; S.D.O.

**Lincoln County**

Cimarron Oil Corp. No. 1 Ornor, C SW SE sec. 31-17-2e. T.D. 1,280 ft.; S.D. for wtr.
Ross Oil Co. No. 1 Bailey, SE cor. sec. 22-15-6. Cleveland 2,205-53 ft., T.D.; est. 5,000,000 ft. dry gas; set 5⅛-in. at 2,-190 ft.

**Noble County**

Lincoln Oil Co. et al No. 1-A Nell, NE cor. sec. 15-23-2w. Wilcox 4,681 ft.; T.D. 4,860 ft.; drlg. by.
Stanolind O. & G. Co. and Amerada Pet. Corp. No. 1 Johnson, NW NW SE sec. 4-20-2w. Wilcox 5,306 ft.; packer froze at 5,260 ft.; drlg. by.

**Oklahoma County**

Sunray Oil Co. No. 1 Dickson, NW cor. sec. 17-11-1e. Dol. 6,275 (cor.) ft.; 1st Wilcox 6,339 ft.; 2nd Wilcox 6,461 ft.; circ. at 6,464 ft.

**Okfuskee County**

Lease Investment Co. No. 1 Evans, SW SE NW sec. 4-13-11. Wilcox 3,162-69 ft., T.D.; flw. 210 bbls. in 16 hrs.; 43.3-grav. oil; to deepen.
Riverland Oil Co. No. 1 Board, NE NW SE sec. 10-13-10. Sd. 1,530-1,600 ft.; S.S.O.

**Osage County**

Midco Oil Corp. No. 1 Osage, SE SE NW sec. 22-23-6e. Miss. 2,980-92 ft., T.D.; D.&A.
Norbla Oil Co. No. 1 Osage, SE cor. sec. 35-23-6. Drlg. 265 ft.

**Pawnee County**

Carter Oil Co. No. 1 Wells, C E½ SE NW sec. 30-23-5. Set 10-in. at 1,470 ft.; drlg. 1,480 ft.

**Payne County**

Bill Riddle No. 1 Van Zandt, NW NW SE sec. 16-18-3e. T.D. 3,910 ft.; D.&A.

**Pontotoc County**

Boettcher O. & G. Co. No. 1 Cann, SE NW NE sec. 25-4n-7e. Drlg. 2,760 ft.
Clark Drlg. Co. et al No. 1 Richardson, SE SE NW sec. 30-4-8. Cromwell 2,780 ft.; Penn. Caney 3,070 ft.; drlg. 3,765 ft.
W. A. Delaney et al No. 1 Payton, NE NE SE sec. 1-4-7. O.W.D.D.; drlg. 2,430 ft.
Mid-Continent Pet. Corp. No. 1 Schoup, SW NW SW sec. 24-5-6. Hunton 2,848 ft.; Sylvan 2,895 ft.; drlg. 2,980 ft.
Norbla Oil Co. No. 1 Kennedy, SE SE NE sec. 13-2-5. T.D. 810 ft.; S.D.
Papoose Oil Co. et al No. 1 Jones, NW SE NW sec. 2-4-5. Viola 2,595 ft.; T.D. 2,-840 ft.; run Schlumberger; S.D.O.
Roodhouse et al No. 1 Booth, SE NW SE sec. 20-2-6. Sylvan 4,389 ft.; Viola 4,530 ft.; T.D. 4,823 ft.; D.P. stuck at 2,600 ft.; shot off; wash over.
Southern Oil Co. No. 1 Young, NE NE SE sec. 17-3-7. Drlg. 750 ft.
Union Dev. Co. No. 1 Abbott, SW NW NE sec. 34-3-6. Drlg. 551 ft.

**Pottawatomie County**

Atlantic Ref. Co. No. 1 Dooley, SE SE SW sec. 9-11-5. Misener 4,675 ft.; Hunton 4,675½ ft.; cg.
Mid-Continent Pet. Corp. No. 1 Ne-Thah-Pea-Se, SE SE NE sec. 24-11-4. Earlsboro 3,925 ft.; T.D. 4,225 ft.; D.P. stuck.
Stanolind O. & G. Co. and Amerada Pet. Corp. No. 1 Billington-B, SW SE SW sec. 32-9-3e. 2nd Wilcox 5,316 ft.; T.D. 5,320 ft.; Halliburton test open 1 hr.; 400 ft. oil and 1 jt. oily mud; bailing.

**Washita County**

John Koberg No. 1 Harms, NW NW NE sec. 6-10-16w. Drlg. 610 ft.

## SOUTHERN OKLAHOMA

**Carter County**

Shell Pet. Corp. No. 1 Smith, NW SE NE sec. 30-5s-1e. Simpson 3,807 ft.; drlg. 3,910 ft.

**Coal County**

Carter Oil Co. No. 1 Clayton, C W½ NE SW sec. 27-2n-9e. Bldg. rig.

**Comanche County**

Frank Scott No. 1-A Kuntz, SE NE SE sec. 21-4n-11w. T.D. 2,750 ft.; S.D.

**Jackson County**

Ace Gutowsky No. 1 Booker, NW cor. sec. 33-2n-18w. T.D. 440 ft.; S.D.
Ace Gutowsky No. 1 Howard, NE SW NW sec. 10-3n-19w. Drlg. 883 ft.

**Johnston County**

Patton et al No. 1 McCrummins, C SW SW NE sec. 16-1s-6e. S.D. 1,165 ft.

**Jefferson County**

Massad & Swansberger No. 1 Barrett, NE SW sec. 11-20-15. 6-in. cmtd. 2,212 ft.; T.D. 2,215 ft.
W. D. Ambrose No. B-1 Pender, sec. 11-20-15, SW NW SW. Cg. 1,995 ft.
Calatex O. & G. No. 3-A Agurs, SW cor. sec. 6-16-6. W.O.S.R.; T.D. 2,483 ft.
Chew & Chew No. 1 Standard Oil, SE cor. SE SE sec. 14-6s-6w. T.D. 1,842 ft.; S.D.

**Love County**

Sinclair Prairie Oil Co. No. 1 Stockton, SE SE SW sec. 26-6s-2w. T.D. 8,583 ft.; P.B. 6,927 ft.; S.D. and S.I.

**McCurtain County**

Wilcox O. & G. Co. No. 1 Neuman, SW SE SW sec. 30-7s-23e. Set 12½-in. 537 ft.; sd. 545-50 ft., H.F.W.; drlg. 560 ft.

**Marshall County**

Stuart & Taylor No. 1 Chestnut, NE cor sec. 23-8s-5e. T.D. 782 ft.; S.D. for tractor.

**Murray County**

O. O. Owens No. 1 Fryer, NE SE NE sec 34-1s-3e. Bromide sd. 2,570-74 ft.; 1,400 ft. wtr. in 6 hrs.; plg. off wtr.

**Pushmataha County**

Erle Halliburton et al No. 1 Bagwell, SW NE NE sec. 30-3s-15e. Sd. 3,049-50 ft., S.O.; drlg. 3,327 ft.

**Stephens County**

Wm. Angle No. 1 Lang, SW SW NE sec. 24-1n-7w. T.D. 5,027 ft. in sh.; abd.
Carter Oil Co. No. 1 Harley, C NE NE sec. 24-2s-4w. Simp. 6,030 ft.; cg. 6,378-81 ft.; S.O. in cores.
Coline Oil Co. No. 1 Johnson, C SW SE SE NE sec. 1-2n-8w. T.D. 6,962 ft.; S.D. for wtr.
Helmerich & Payne No. 1 Graham, SW SW NE sec. 12-1n-5w. T.D. 5,014 ft. made small flw.; tstg. through perfs. at 3,785-3,803 ft.
Geo. L. Pace et al No. 1 Tah-Su-Dah, SE NW SW sec. 27-1s-9w. T.D. 2,707 ft.; D.&A.
Ed Parsons No. 1 Blake, C SW NW sec. 22-2n-8w. Drlg. 3,326 ft.

**Tillman County**

Cavens et al No. 1 Southerland, SW SW NW sec. 35-4s-16w. R.U. and S.D.
Magnolia Pet. Co. No. 1 Brown, SW SE NE sec. 21-3s-18w. Canyon 3,480 ft.; Strawn 4,335 ft.; drlg. 6,145 ft.

# LOUISIANA

## NORTH LOUISIANA PROVEN

**Caddo—Rodessa**

Blackwell O. & G. Co. No. 3 Neugent, sec. 8-23-16. Drlg. 6,566 ft.
Clark Oil Corp. No. 2-A Sharp, SW SE sec. 4-23-16. 16-in. cmt. 292 ft.
J. E. Jones No. 1-A Parker, SW cor. sec. 4-23-16. 7-in. 5,952 ft.; T.D. 6,027 ft.; W.O.C.S.
R. W. Norton No. 1 Payne, C SE SE sec. 27-23-16. Drlg. 11,145 ft.
R. W. Norton No. 6 Starke, NE sec. 17-23-16. Drlg. 5,481 ft.
R. W. Norton No. 11 Starke (a), NE sec. 17-23-16. Drlg. 1,726 ft.
Standard Oil Co. No. 2 L. J. Kaempfer, NE NW SW sec. 9-23-16. T.D. 5,988 ft.; tstg.
Standard Oil of La. No. 4 Sarah Kaempfer, NE sec. 9-23-16. Drlg. 2,391 ft.
Standard Oil of La. No. 2 J. W. Farmer, NW sec. 7-23-15. Drlg. 1,600 ft.
Standard Oil of La. No. 1-B Emma J. Parker, SE NE sec. 9-23-16. R.U.
Standard Oil of La. No. 2 O. A. Zylks, NE SE sec. 9-23-16. R.U.
Surf Oil Co. No. 1 Allison, NE sec. 8-23-16. 7-in. 5,945 ft.; T.D. 5,950 ft.
Surf Oil Co. No. 1 Upchurch, NE sec. 8-23-16. Drlg. 5,796 ft.
United Gas No. 7 fee 574, SW NW sec. 16-23-16. T.D. 5,940 ft.; rg. 7-in.
United Gas No. 8 fee 574, NW cor. sec. 16-23-16. Drlg.
United Gas No. 11 Pitts Unit, SE NW sec. 13-23-16. T.D. 6,038 ft.; tstg. dry; W.O.
United Gas No. 2 Starke, C SW SW sec. 9-23-16. Comp.; flw. 21 B.P.H.; T.D. 5,955 ft.

## N. LOUISIANA WILDCATS

**Bienville Parish**

DeSota O. & G. Co. No. 1 Ashley, SW SE sec. 15-16-10w. Drlg. 4,690 ft.
Hunt Oil Co. et al No. 1 Bodcaw, SE sec. 30-14-5w. Drlg. 5,555 ft.
Lide & Greer No. 2 Davis, NW NE sec. 12-16-5w. Drlg. 2,246 ft.
McDowell et al No. 1 Locke, NE cor. sec. 9-15-10. Cg. 2,720 ft.

**Bossier Parish**

Arkansas-La. No. 2-B Werner, NE cor. sec. 7-17-11. Drlg. 5,894 ft.
Producers O. & G. No. 1 R. Johnson, NE sec. 5-17-11. Drlg. 4,720 ft.
Triangle Drlg. Co. No. 1 C. Howell, NW sec. 26-17-12. Drlg. 4,435 ft.
United Gas No. 1 S. L. Herold, 660 ft. S and W. NE sec. 31-17-4. Drlg. 4,958 ft.
United Gas No. 1-A Jeter Unit, SW sec. 24-17-12. T.D. 5,148 ft.; tstg. gas.
United Gas No. 3 L. Schmitt, NW sec. 14-17-12. Drlg. 1,400 ft.
United Gas No. 2-I H. C. Skannal, SW sec. 25-17-12. Comp.; flw. 40,000,000 ft. gas.; T.D. 5,156 ft.

**Caddo Parish**

J. G. Abney No. 1 Thigpen & Herold, NW SW sec. 15-21-16. T.D. 1,834 ft.; prep. run csg.
W. D. Ambrose No. 1 Pender, NW NE


Hoard Exploration Co.

Seismograph Surveys

618 Esperson Bldg.

Houston - - Texas

McGREGOR

40 YEARS

OUR 12 Different types of working barrels and pumps are the result of 40 years of practical field experience. We also make all sizes and kinds of Balls and Seats, Valves, Cups, etc.

*Ask for booklet.*

McGREGOR WORKING BARREL COMPANY

Bradford, Pa., U.S.A.

sec. 32-21-16. Comp.; pump 20 B.P.D.; T.D. 961.

T. B. Donnell No. 4 Stokeley, SW sec. 5-20-16. 6-in. cmtd. 950 ft.; W.O.C.S.

T. B. Donnell No. 5 Stokeley, SW sec. 5-20-16. 7-in. cmt. 948 ft.

W. C. Feazel No. 1 Pitts, SE NE sec. 8-23-16. 10-in. cmt. 2,000 ft.

C. L. Ferguson et al No. 1 Cooney, sec. 35-21-16. Drlg. 1,630 ft.

Hancock & Uhlman No. 1 Helpman, sec. 16-21-16. T.D. 1,009 ft.; W.O.S.R.

W. J. Hunter et al No. 1 Stoer, NW SW NE sec. 10-15-15. T.D. 6,012 ft.; tstg.

Marine Exp. Co. No. 1 Herold, NW sec. 10-21-16. R.U.

Orr et al No. 1 Acme Fee, Cen. sec. 15-21-16. Drlg. 250 ft.

Tom Pappas No. 2 Spell, SW sec. 28-21-15. 7-in. cmt. 1,395 ft.; drlg. 1,400 ft.

Frank Perkins No. 1 Stiles, SW SW sec. 33-21-16. Drlg. 350 ft.

Prairie River Synd. No. 1 Hutchinson, SW NW sec. 15-15-12. Drlg. 7,878 ft.

J. J. Shulman No. 1 Bickham, NE sec. 28-21-5. Drlg. 560 ft.

Simplex Oil Co. No. 11 Glassell, NE SW sec. 10-20-15. Comp.; flw. 7 B.P.D.; T.D. 2,204 ft.

Stanolind O. & G. Co. No. 124 Dillon, NW SE sec. 14-21-15. Drk.

R. G. Trippett & D.C.R.O. No. 1 School Bd., NE sec. 16-19-14. Drlg. 210 ft.

### Claiborne Parish

Atlantic Rfg. Co. No. 2 F. B. King, W½ NE SE sec. 35-21-5. 10-in. cmt. 823 ft.

J. B. Bond No. 1 H. E. Patton, W½ NW NW sec. 36-21-5. Drlg. 5,280 ft.

Gulf No. 1 Henry, S½ NW NE sec. 31-21-4. Comp.; flw. 720 B.P.D.; T.D. 5,217 ft.

Hollifield & McFarland No. 1 M. Patton, N½ NW SE sec. 31-21-4. Comp.; flw. 625 B.P.D.; T.D. 5320 ft.

Hollifield & McFarland No. 2 M. Patton, W½ SW SE sec. 31-21-4. R.U.

T. L. James & Co. No. 1 Baker, W½ SE NE sec. 25-21-5. Cg. 5,255 ft.

La. Lse. & Dev. Co. No. 1 R. D. McDonald, W½ NW NW sec. 25-21-5. 7-in. 5,235 ft.; T.D. 5,2[illegible]

Lyons & Neely No. 1 Bean, W½ SE NE sec. 31-21-4. R.U.

Lyons & Neely No. 2-B Maggie Patton, E½ SE SW sec. 31-21-4. Comp.; flw. 15 B.P.H.; T.D. 5,280 ft.

McMillian et al No. 2 Roberta Vaughn, N½ NW NE sec. 36-21-5. 7-in. cmt. 5,268 ft.; T.D. 5,284 ft.

Magnolia Pet. Co. No. 2 English, S½ SW NE sec. 31-21-4. Drlg. 5,260 ft.

Magnolia Pet. Co. No. 3 English, N½ SE NW sec. 31-21-5. 10-in. cmt. 901 ft.

Magnolia Pet. Co. No. 2 H. E. Patton, SW sec. 36-21-5. Drlg. 4,272 ft.

C. R. Schuster et al No. 2 M. S. Patton, S½ NW NE sec. 1-20-5. Drlg. 4,414 ft.

Scouts Oil Co. No. 2 R. Vaughn, W½ NE NW sec. 36-21-5. 10-in. 863 ft.

Shreveport Oil Corp. No. 1 Edwards, NE sec. 16-20-5w. Rep. rig; T.D. 4,075 ft.

Standard Oil of La. No. 2 F. B. King, et al NE sec. 35-21-5w. Drlg. 860 ft.

J. C. Trippett Drlg. Co. No. 1 Aycock, N½ NE SE sec. 1-20-5. R.U.

J. C. Tippett No. 2 H. E. Patton, sec. 36-21-5. 7-in. cmt. 5,270 ft.; T.D. 5,307 ft.

P. W. Woodruff No. 2-B McDonald, N½ NE NE sec. 36-21-5. Drlg. 4,475 ft.

P. W. Woodruff No. 1-A McDonald, N½ SE NE sec. 36-21-5. Drlg. 4,944 ft.

### De Soto Parish

Grogan Oil No. 1-A Ramsey, sec. 36-11-11. Cg. 2,935 ft.; shows.

J. F. McMannan No. 1 Cook Ld. Co., SE sec. 16-16-11. S.D. 50 ft.

Superior Oil Co. of Okla. No. 1 Joyner, SE NW SW sec. 28-11-12. Drlg. 4,585 ft.

### Franklin Parish

Jensen & Bailey No. 1 Grayson, C NE sec. 36-12-6e. Cg. 1,744 ft.

### Grant Parish

H. M. S. Corp. No. 1 McNeely, sec. 21-6n-3w. Drlg. 2,190 ft.

Harvey Weir No. 1 Calfax Bk. & Tr. Co., NE NW sec. 15-7n-3w. 10-in. cmtd. 160 ft.; W.O.C.S.

### Lincoln Parish

J. D. Carruthers No. 1 Aycock, N½ SW SW sec. 6-20-4. R.U.

B. O. D. C. and H. D. Easton No. 1 G. W. Dye, NE NE sec. 21-19-4w. Drlg. 5,200 ft.

Glassell & Glassell No. 1 Gray, SE sec. 16-20-3e. Drlg. 5,590 ft.

Lyons & Neely No. 1 Carruthers, N½ NE NW sec. 6-20-4. Comp.; flw. 15 B.P.H.; T.D. 5,290 ft.

Lyons & Neely No. 1 Effie P. Taylor, S½ NW NW sec. 6-20-4. Drlg. 4,416 ft.

### Natchitoches Parish

J. T. Lent No. 1 Locke, NE SE SW sec. 26-9-9. S.D. 2,926 ft.

### Red River Parish

Glassell & Whitehurst No. 1 LeLong, NE NW NE sec. 25-12-11. 13-in. cmt. 250 ft.

Peria Oil Co. No. 1 DeLong, 330 ft. S and E, C sec. 23-12-10. 7-in. cmtd. 1,023 ft.; S.O.; T.D. 1,039 ft.

J. C. Prine No. 1 Haynes, SW sec. 20-13-10. Drlg. 700 ft.

J. D. Wadley No. 1 McClelland, SE NE sec. 24-13-11. Tstd. dry; T.D. 2,550; W.O.

Yandell & Rogers No. 4 Caspari, SW SE SW sec. 27-13-11. Drlg. 1,728 ft.

### Sabine Parish

Ellis Prod. Co. No. 1 Wright, NW SW sec. 4-5-12. R.U.

Odell Henson No. 1 Long Bell, SE NE SW sec. 5-8-13. S.D. 1,690 (1st hole junked and rig skidded).

Kirk-Green-Way Inc. No. 1 Whitney Corp., NW NE sec. 8-9-13. T.D. 5,707 ft.; D.S. showed mud and S.W.; drlg. 5,962 ft.

Peria Oil Co. No. 1 Brown, SE SW NW sec. 16-9-13. T.D. 1,557; acidized; Tstg.

Remine et al No. 1 4-L Co., SW SW sec. 7-5-12. R.U.

Roy Drlg. Co. No. 4 Burkett, SE NW SW sec. 10-9-13. T.D. 2,001; prep. test.

A. C. Scott No. 1 Bowman-Hicks Lbr. Co., sec. 23-9-13. T.D. 3,098 ft.; comp.; pump 25 B.P.D.; T.D. 3,097 ft.

Willis & Dowden No. 1 Lynch, SW NE SW sec. 29-9-13. T.D. 1,608 ft.; arg. tst.

Windsor No. 1 H. Brown, NW SW NW sec. 16-9-13. 7-in. csg. 1,507; W.O.C.S.

Windsor No. 1 M. Elliott, SE NE NW sec. 17-9-13. R.U.

### Tensas Parish

Ark. Fuel Oil Co. No. 1 Hardwood, SE NW NW sec. 8-11-10e. Drlg. 410 ft.

H. M. Jones et al No. 1 Chicago Mill & Lbr. Co., NE sec. 30-12n-10e. T.D. 798 ft.; blew out after stng. 8 mo.; gauging 30,000,000 ft. gas and 10,000 bbls. wtr.; drld. out bridge and well blew out again and bridged over; T.D. 798 ft.; W.O.; T.D. 798 ft.; blew out again and bridged.

### Webster Parish

Magnolia No. 2 D. G. Cox, SW SE NE sec. 22-21- Drlg. 7,640 ft.

Magnolia Pet. Co. No. 2 G. W. Cole, NE NW NE sec. 27-21-10. Drlg. 6,512 ft.

Magnolia Pet. No. 6 Ira Cox, NE NE SE sec. 23-21-10. Drlg. 6,025 ft.

Magnolia Pet. Co. No. 2 A. J. McCook, SW sec. 22-21-10. Drlg. 3,640 ft.

Ohio Oil Co. No. 47 Bodcaw Acct. 2, SW SE sec. 15-21-10. R.U.

Ohio Oil Co. No. 1 S. P. D. Coyle, NW SE SW sec. 23-21-10. Comp.; flw. 305 bbls. distillate a day; T.D. 8,452 ft.

Ohio Oil Co. No. 2 R. M. Coyle SE sec. 22-21-10. 7-in. 8,482 ft.; T.D. 8,503 ft.; W.O.C.S.

Ohio No. 1 S. P. D. Coyle and W. Cox, SW SW SE sec. 23-21-10. Drk.

Ohio Oil No. 1 T. Crichton, Acct. No. 2, SE NE sec. 21-21-10. R.U.

Ohio Oil No. 1 L. M. Gardner, NE sec. 22-21-10. Drlg. 7,666 ft.

Ohio Oil Co. No. 2 A. J. Hodges, NE NW SW sec. 23-21-10. Comp.; flw. 470 bbls. dist. a day; T.D. 8,517 ft.

Ohio No. 7-B R. L. Holloway 586 ft. N. 756 ft. E. line, sec. 23-21-10. Drlg. 2,520 ft.

L. R. Skidmore No. 1 Barnett, NE NW SW sec. 29-17-9. T.D. 3,785 ft.; S.D.

Standard Oil of La. No. 1 E. L. Stewart, SE SE SE sec. 32-21-10. Drlg. 7,327 ft.

Woodley Pet. Co. No. A-2 L. C. Cox, SW NE sec. 22-21-10. Drlg. 6,283 ft.

## SOUTH LOUISIANA FIELDS

### Abbeville—Vermilion Parish

Continental Oil Co. No. 1 Brookshire, sec. 66-12s-3e. 18⅝-in. csg. 237 ft.; 13⅜-in. csg. 2,125 ft.; drlg. sd. 6,498 ft.

### Bay St. Elaine—Terrebonne Parish

F. J. LeBlanc et al No. 1 Wurzlow, sec. 17-22s-18e. T.D. 1,185 ft., corrected.

Texas Co. No. 14 State, sec. 20-22s-18e. T.D. 5,115 ft.; P.B. and sdtrkd.; drlg. sd. and anh. 5,012 ft.

### Bayou Cocotriz—Terrebonne Parish

Shell Pet. Corp. No. 1 Pelican, sec. 35-17s-15e. T.D. 10,325 ft.; drill stem stuck, cutting.

Shell Pet. Corp. No. 2-B Realty Operators, sec. 18-17s-15e. 10¾-in. csg. 2,481 ft.; drlg. sdy. sh. 4,635 ft.

### Big Lake—Cameron Parish

Union Sulphur Co. et al No. 1 J. O. Heber, sec. 18-12s-8w. T.D. 1,854 ft.; 7-in. csg. 1,854 ft.; comp. as S.W. disposal well.

Union Sulphur Co. No. 1 Henry Hebert, sec. 18-12s-8w. Drlg. sh. 3,829 ft.

### Black Bayou—Cameron Parish

Shell Pet. Corp. No. 37 Watkins, sec. 8-12s-12w. T.D. 5,285 ft.; abd.

### Cameron Meadows—Cameron

Burton-Sutton Oil Co. No. 6 School Land, sec. 16-14s-13w. T.D. 4,068 ft.; R.U. to pump.

Magnolia-Humble O. & R. Co. No. 20 Cameron Meadows, sec. 21-14s-13w. R.U.

### Charenton—St. Mary Parish

Pan American Prod. Co. No. 3 Laws Realty Co., sec. 25-12s-9e. T.D. 8,860 ft.; fsg.

Pan American Ref. Co. No. 4 Laws Realty Co., sec. 30-13s-10e. Drk.

Pan American Prod. Co. No. 1 South Coast Corp., sec. 30-13s-10e. T.D. 7,923 ft.; rec. 1,000 ft. of P.L.O. on D.S.T. 7,906-23 ft.; 7-in. csg. 7,906 ft.; T.D. 8,247 ft.; fsg.

Pan American Prod. Co. No. 1 Veeder, sec. 30-13s-10e. Drk.

### Choctaw—Iberville Parish

Standard Oil Co. No. 10 Grove, sec. 52-9s-11e. Drlg. rock 1,945 ft.

Standard Oil Co. No. 6 Gay, sec. 52-9s-11e. T.D. 5,136 ft.; fsg.

### Darrow—Ascension Parish

Humble O. & R. Co. No. 10 Darrow. Abd. 6,920 ft.

Kiva Oil Co. No. 1 Duplessis, sec. 69-10s-2w. R.U.

### Dog Lake—Terrebonne Parish

Texas Co. No. 5 State, sec. 5-22s-16e. 10¾-in. csg. 1,505 ft.; T.D. 7,231 ft.; P.B. 6,310 ft. to sidetrack; drlg. sh. 6,516 ft.

### Fausse Point—Iberia Parish

Texas Co. No. 3 State, sec. 35-11s-8e. 10¾-in. csg. 1,245 ft.; drlg. sh. 3,970 ft.

### Four Isle—Terrebonne Parish

Texas Co. No. 9 L.L.&E., sec. 24-21s-16e. Drlg. sd. 4,668 ft.

### Garden Island—Plaquemines Parish

Texas Co. No. 50 State, sec. 19-23s-20e. Drlg. 3,996 ft.

### Gillis—Calcasieu Parish

Fohs Oil Co. No. 18 Castle, sec. 34-10s-12w. T.D. 7,404 ft.; 7-in. csg. 7,253 ft.

Union Sulphur Co. No. 15 Barbe, sec. 9-9s-8w. T.D. 6,730 ft.; P.B. 3,930 ft.; drlg. sdy. sh. and L. 6,584 ft.

Union Sulphur Co. No. 8 Castle, sec. 13-9s-8w. R.U.

Union Sulphur Co. No. 5 Kaufman, sec. 13-7s-8w. T.D. 7,052 ft.; 7-in. csg. 7,042 ft.; I.P. 260 B.P.D., 18/64-in. choke.

Union Sulphur Co. No. 6 Kaufman, sec. 13-9s-8w. R.U.

Union Sulphur Co. No. 6 Mayo-Reeves sec. 12-9s-8w. 9⅝-in. csg. 6,851 ft.; perf. csg. 6,648-54 ft.; comp. for gas well.

### Gueydan—Vermilion Parish

Pure Oil Co. No. 6 Mulney Investment Co., sec. 34-11s-1w. 10¾-in. csg, 1,049 ft.; drlg. sd. 2,995 ft.

### Hackberry—Cameron Parish

Burton Oil Co. No. 2 Lewis, sec. 22-12s-10w. Drlg. sh. 3,800 ft.

Burton-Sutton Joint Interest No. 2-A Duhon, sec. 22-12s-10w. T.D. 4,699 ft.; 7-in. csg. 4,661 ft.; I.P. 472 B.P.D., ¾-in. choke.

W. T. Burton No. 2 R. Vincent, sec. 22-12s-10w. T.D. 4,492 ft.; 7-in. csg. 4,455 ft.; no report.

Burton-Sutton Oil Co. No. 3 Vincent, sec. 22-12s-10w. Drlg. sh. 3,004 ft.

Emanon Oil Co. No. 1 Porter Ellender, sec. 21-12s-10w. Fsg. at 1,656 ft.

Stanolind O. & G. Co. No. 7 Carter and Sweeney, sec. 22-12s-10w. T.D. 4,322 ft.; stuck screen, reaming.

Stanolind O. & G. Co. No. 1-B Duhon, sec. 27-12s-10w. Drlg. sh. 726 ft. (cor.)

Stanolind O. & G. Co. No. 4 Duhon, sec. 22-12s-10w. 10¾-in. csg. 1,273 ft.; T.D. 4,574 ft.; 7-in. csg. 4,500 ft.

Stanolind O. & G. Co. No. 25-B Gulf Land fee, sec. 15-12s-10w. 20-in. csg. 158 ft.; T.D. 7,672 ft.; fsg.

Stanolind O. & G. Co. No. 4 Lacey, sec. 27-12s-10w. R.U.

Stanolind O. & G. Co. No. 19 School Land, sec. 16-12s-10w. 10¾-in. csg. 1,942 ft.; W.O.C.

Texas Co. No. 22-B State, Twp. 12s-9w. Drlg. sh. 7,328 ft.

Union Sulphur Co. No. 9 Doiron, sec. 37-12s-10w. Drlg. sdy. sh. 4,448 ft.

### Jeanerette—St. Mary Parish

Herton Oil Co. No. 1 Banta, sec. 40-13s-9e. 9⅝-in. csg. 7,030 ft.; T.D. 9,765 ft.; drill stem stuck.

Herton Oil Co. No. 7 Carter, sec. 38-13s-9e. Drlg. sh. and shells 7,636 ft.

Herton Oil Co. No. 8 Carter, sec. 44-13s-9e. R.U.

Herton Oil Co. No. 2 Roanes, sec. 40-13s-9e. T.D. 6,642 ft.; 7-in. csg. 6,629 ft.; I.P. 862 B.P.D., ¼-in. choke.

### Iowa—Jefferson Davis Parish

Shell Pet. Corp. No. 25 Heyd, sec. 40-13s-9e. T.D. 4,450 ft.; I.P. 410 B.P.D., ¼-in. choke.

Shell Pet. Corp. No. 26 Heyd, sec. 40-13s-9e. R.U.

### Jennings—Acadia Parish

Frank W. Bennett et al No. 1 Brethern and Christ Church, sec. 41-7s-2w. Drlg. sd. 856 ft.

W. T. Burton Oil Co. No. 2 J. J. Roboria, sec. 42-9s-2w. Drlg. L. 5,115 ft.

Cosmo Pet. Co. No. 1 Jenning Heywood, sec. 41-9s-2w. Drlg. sh. 1,950 ft.

Alfred Glassell No. 1 R. McFarlan, sec. 41-9s-2w. T.D. 6,809 ft.; I.P. 718 B.P.D.

Alfred Glassell No. 1 Troushelle, sec. 42-9s-2w. T.D. 7,156 ft.; 7-in. csg. 7,034 ft.; I.P. 698 B.P.D., 15/64-in. choke.

Glassell No. 3 Trushell, sec. 42-9s-2w. Spudded.

Stanolind O. & G. Co. No. 11 Crowley, sec. 48-9s-2w. Spudded.

Stanolind O. & G. Co. No. 18 Houssiere-Latrielle, sec. 47-9s-2w. 8⅝-in. csg. 358 ft.; 6¾-in. csg. 7,005 ft.; T.D. 7,980 ft.; P.B. 6,679 ft.

Superior Oil Prod. Co. No. 2 Iowa-Jennings, sec. 41. Drlg. sh. 6,185 ft.

Superior Oil Prod. Co. No. 3 Jennings sec. 42-9s-2w. T.D. 6,754 ft.; 7-in. csg. 6,530 ft.; drlg. plug.

Superior Oil Co. No. 5 Leckelt, sec. 42-9s-2w. R.U.

Superior Oil Co. No. 6 Leckelt, sec. 42-9s-2w. Drlg. sh. 2,612 ft.

Superior Oil Prod. Co. No. 4 Leckelt, sec. 42-9s-2w. Drlg. sd. and sh. 6,612 ft.

Superior Oil Co. No. 1 Moresi, sec. 41-9s-2w. Drlg. sh. 5,959 ft.

### Lirette—Terrebonne Parish

Humble O. & R. Co. No. 1 Wurzlow, sec. 32-19s-19e. R.U.

### Lafitte—Jefferson Parish

Texas Co. No. 4 Lafitte (O.W.D.D.), sec. 20-17s-24e. T.D. 9,998 ft.; stuck drill stem; fsg.

Texas Co. No. 2 Milling, sec. 20-17s-24e Dredging canal.

Texas Co. No. 7 Rigolet, sec. 29-17s-24e. Coring sh. 10,404 ft.

Texas Co. No. 1 State-Bayou Normar sec. 28-17s-24e. Drlg. sh. and L. 6,024 ft.

### Lake Hermitage—Plaquemines Parish

Gulf Ref. Co. No. 7 Lafourche, sec. 12-18s-25e. Drlg. sh. 2,465 ft.

### Lake Pelto—Terrebonne Parish

Texas Co. No. 17 State, sec. 17-23s-18e. Drlg. sh. 3,813 ft.

### Leesville—Lafourche Parish

Gulf Ref. Co. No. 2 Allen Land Co., sec. 26-21s-22e. T.D. 3,797 ft.; 7-in. csg. 3,760 ft.; I.P. 702 B.P.D., ⅜-in. choke.

Texas Co. No. 54 Leesville, sec. 27-21s-22e. 10¾-in. csg. 746 ft.

### Lockport—Cameron Parish

Magnolia Pet. Co. No. 6 Freeburg, sec. 9 10s-9w. T.D. 6,485 ft.; hole cleaned, drlg. ahead.

### New Iberia—Iberia Parish

Wm. Hellis No. 3 Schwing, sec. 57-12s-7e S.D. 4,962 ft.; salt; P.B. and sdtrkd.; drlg. sh. 5,010 ft.

Texas Co. No. 3 Bryant, sec. 25-12s-7e. Drlg. 1,819 ft.

Wm. Hellis No. 9 Bernard, sec. 54-12s-7e. Drlg. sh. 4,429 ft.

Wm. Hellis No. 5 Bullock-Burke, sec. 52-12s-7e. T.D. 5,147 ft.; 7-in. csg. 5,065 ft.

Texas Co. No. 3 Duhe, sec. 26-12s-7e. Drlg. sh. 3,774 ft.

Texas Co. No. 6-B Hanzen, sec. 54-12s-7e. T.D. 4,846 ft.; S.D.

Texas Co. No. 1 Schwing, sec. 71-12s-7e. Drlg. sh. 3,412 ft.

### Roanoke—Jefferson Davis Parish

Humble O. & R. Co. No. 6 Kratzer, sec 11-9s-4w. T.D. 8,704 ft.; perf. csg. 8,706-08 ft.; installing flow valves.

### Sorrento—Ascension Parish

Sorrento Oil Co. No. 1 Bernard, sec. 9-19s-14e. T.D. 6,708 ft.; P.B. 5,373 ft.; drlg. L. 6,864 ft.

### South Roanoke—Jeff Davis Parish

Union Sulphur Co. et al No. 1 T.R.S. Farms Co., sec. 23-10s-4w. 12½-in. csg. 1,835 ft.; drlg. sh. 6,680 ft.

### South Jennings—Jeff Davis Parish

Stanolind-Amerada Pet. Corp. No. 2 Calcasieu Natl. Bank, sec. 10-10s-3w. 13⅜-in. csg. 1,987 ft.; T.D. 9,170 ft.; abd.

### Starks—Calcasieu Parish

Turnbull et al No. 2 Industrial Lbr. Co., sec. 19-9s-12w. Drlg. sdy. rock 4,114 ft.

### Sulphur—Calcasieu Parish

Union Sulphur Co. No. 846 fee, sec. 29-9s-10w. Drlg. S.W. sd. 4,053 ft.

Union Sulphur Co. No. 847 fee, sec. 29-9s-10w. Drlg. sh. 2,313 ft.

### St. Martinsville—St. Martin Parish

Tide Water Oil Co. No. 1-C Smedes, sec. 57-11s-6e. T.D. 9,645 ft.; heaving sh.; drill stem stuck.

Tide Water Oil Co. No. 4 Smedes, sec. 57-11s-6e. Drlg. sd. 5,580 ft.

### Tepetate—Acadia Parish

Continental Oil Co. No. 1 Gullery, sec. 34-7s-2w. Drlg. sh. and L. 7,437 ft.

Continental Oil Co. No. 2 Macabees, sec. 22-7s-2w. T.D. 8,202 ft.; abd.

Continental Oil Co. No. 2-B Veronie, sec. 28-7s-2w. R.U.

### Valentine—Lafourche Parish

Pan American Prod. Co. No. 1-A Harang, 60 ft. due west of No. 1 Harang. Drlg. sh. 4,190 ft.

Pan American Prod. Co. No. 5 Harang, sec. 8-17s-20e. 16-in. csg. 235 ft.; P.B. and S.T.; T.D. 4,761 ft.; P.B. and S.T.; T.D. 5,892 ft.; 7-in. csg. 5,880 ft.; I.P. 477 B.P.D.

Pan American Prod. Co. No. 6 Harang, sec. 8-17s-20e. T.D. 5,416 ft.; 7-in. csg. 5,381 ft.; I.P. 576 B.P.D. ¼-in. choke.

Pan American Prod. Co. No. 7 Harang, sec. 7-17s-20e. R.U.

Pan American Prod. Co. No. 8 Harang, sec. 9-17s-20e. R.U.

### Vinton—Calcasieu Parish

Katina Oil Co. No. 1 Vincent, sec. 34-10s-12w. 8-in. csg. 1,108 ft.; drlg. plug.

### White Castle—Calcasieu Parish

Shell Pet. Corp. No. 4 Shingle, sec. 12-11s-12e. T.D. 8,903 ft.; P.B. 8,717 ft.; milling out csg. at 8,027 ft.; T.D. 9,127 ft.; abd.

## S. LOUISIANA WILDCATS

### Acadia Parish

H. E. Dalton No. 1 Setting, sec. 17-7s-1w. T.D. 5,426 ft.; left 900 ft. of D.S. in hole.

Humble O. & R. Co. No. 1 Floyd Williams, sec. 34-8s-1e. T.D. 8,037 ft.; P.B. 7,404 ft.; strkd. 7,642 ft.; drlg. shaly sd. 7,932 ft.

J. G. Mayo et al. No. 1 Bank of Commerce, sec. 19-7s-1e. 10¾-in. csg. 1,710 ft.; drlg. sh. 6,314 ft.

### Allen Parish

Humble O. & R. Co. No. 3 Bel, located in cratered hole, sec. 26-6s-7w. 10¾-in. csg. 165 ft.; T.D. 2,870 ft.; 7-in. csg. 2,768 ft.; shot well; failed to stop flwg. S.W.; S.D.

### Cameron Parish

Humble O. & R. Co. No. 1 Hanzen, sec. 5-12s-6w. 13⅜-in. csg. 3,046 ft.; drlg. sh. 7,630 ft.

Pure Oil Co. No. 2 State, sec. 14-13s-3w. Driving piling.

Southern Sulphur Co. No. 2 State, sec. 29-15s-10w. S.D. 2,611 ft.

### Cameron Parish—Gulf of Mexico

Superior Oil Prod. Co. et al No. 1 State-Gulf of Mexico, 3,800 ft. W, 6,200 ft. S of SE cor. of irregular sec. 4-15s-8w. Driving piling.

### East Baton Rouge Parish

Cavalier Oil Co. No. 1 A. R. Anneson, sec. 33-4s-1w. Drlg. sh. 2,050 ft.

Cavalier Oil Co. No. 1 Elliott, sec. 3-9s-

2e. 10¾-in. csg. 1,950 ft.; T.D. 6,115 ft.; drill stem stuck.
Louisiana Crusader Oil Co. No. 2 Louisiana State. 10¾-in. csg. 2,182 ft.; W.O.C.

**East Feliciana—Wild**

Koch et al No. 1 Andrews, sec. 69-2s-3e. 10-in. csg. 1,086 ft.; drlg. sh. 1,896 ft.

**Evangeline Parish**

Continental Oil Co. No. 1 Tate, sec. 44-3s-2e. R.U.

**Iberia Parish**

E. J. Beaullied No. 1 Baez, sec. 35-12s-7e. T.D. 7,962 ft.; abd.
Jefferson Lake Oil Co. No. 414 State Lake Pigneur, Twp. 12s-5e. Top salt 990 ft., set 10¾-in. csg. 5,095 ft.; top oil sd. 6,915 ft.; 7-in. csg. 6,930 ft.; cd. salt 7,059-60 ft.; P.B. 5,500 ft.; cored sd. showing oil 6,626-28 ft.; coring ahead.

**Jefferson Parish**

Louisiana Crusader Oil Corp. No. 1 Langley, sec. 36-7s-5w. T.D. 7,450 ft.; P.B. to sdtrk. at 6,868 ft.; T.D. 9,045 ft.; run 7-in. csg.
Triangle Oil Co. No. 1 Conroe, sec. 125-12s-11e. T.D. 2,461 ft.; P.B. and strkd.; drlg. sh. 900 ft.

**Jefferson Davis Parish**

Stanolind O. & G. Co. No. 2-B Calcasieu Natl. Bank, sec. 28-7s-3w. 13⅜-in. csg. 1,950 ft.; drlg. sh. and shells 8,315 ft.

**Lafourche Parish**

Gulf Oil Corp. No. 3 State, sec. 36-23s-21e. R.U.
Fohs Oil Co. No. 1 State Lake, sec. 65-17s-19e. 9⅝-in. csg. 8,384 ft.; oil sd. 9,391-9,406 ft.; T.D. 9,406 ft.; 7-in. csg. 9,406 ft.; perf. csg. 9,365-72 ft.; flowed at rate of 400 bbls. of 38.3-grav. oil; sanded up.

**Plaquemines Parish**

Tide Water Oil Co. No. 3 Manhattan Fruit Co., sec. 26-21s-30e. Drlg. sdy. sh. 5,912 ft.

**Rapides Parish**

C. L. Decker No. 1 Lee Lbr. Co., sec. 21-5n-3e, T.D. 3,558 ft.; abd.
R. D. Webb No. 1 A. M. Brasher, sec. 22-4n-2w. S.D. 5,236 ft.

**St. Bernard Parish**

Gulf Oil Corp. No. 1 Lake Lery, sec. 28-14s-14e. Drlg. sh. 6,502 ft.
Southern Sulphur Co. No. 2 State Lake Borgne, sec. 38-14s-15e. 13⅜-in. csg. 303 ft.; drlg. sd. 3,358 ft.

**St. Charles Parish**

Amerada Pet. Corp. and La. Ld. & Expl. Co. No. 1 State, sec. 13-15s-20e. Cd. oil sd. 6,828-95 ft.; T.D. 7,124 ft.; 9⅝-in. csg. 7118 ft.; recementing csg.

**St. Landry Parish**

Gulf Oil Corp. No. 1 Haas & Hirsch, sec. 12-6s-7e. Drlg. sd. 5,383 ft.

**St. Martin Parish**

Geo. E. Lilly et al No. 1 Martin, sec. 32-9s-7e. Top salt 4,293 ft.; T.D. 4,450 ft.; S.D.
Texas Co. No. 3 State, sec. 14-10s-9e. cmtd. on bttm.; T.D. 8,208 ft.; top salt 8,175 ft.; P.B. 7,600 ft.; top of cmt. plug 7,674 ft.; sdtrkd.; drld. into old hole at 7,800 ft.; P.B. 7,652 ft.; sidetrack 7,794 ft.; recovered mud on drill stem 7,826-50 ft.; cored to 7,852 ft.; make drill stem test.

**St. Mary Parish**

Texas Co. No. 1 Horse Shoe Bayou, sec. 40-17s-9e. T.D. 10,975 ft.; 7⅝-in. csg. 18-in. csg. 101 ft.; T.D. 12,261 ft.; blew out; caught fire; burned for 1 hr. and hole bridged; circulating mud and cleaning hole.
Texas Co. No. 1 State-Bateman Lake, sec. 21-16s-12e. Drlg. sh. 10,430 ft.

**Vernon Parish**

George Greer et al No. 1 Commercial Natl. Bank, sec. 9-1s-8w. R.U.

# ARKANSAS

**Columbia County**

Robt. Keene et al No. 1 Runyon, NW SE NE sec. 1-16s-21w. R.U.

**Crittendon County**

Stanley Oil Corp. No. 1 Danner, C sec. 18-8n-9e. Drlg. 125 ft.

**Dallas County**

J. C. Kelly No. 1 Serrells, SE SE SW sec. 35-10-16. D.&A.; T.D. 1,662 ft.

**Hempstead County**

E. H. Moore, Inc. No. 1 fee, NE cor. E½ SE¼ sec. 21-14-25. T.D. 4,515 ft.; D.&A.

**Lafayette County**

Nivla Oil Corp. No. 1 DeLoy, SW SW SE sec. 19-15s-24w. Drlg. 4,450 ft.

**Miller County**

E. H. Moore No. 2 Dale, 660 ft. N and W. C sec. 24-15-26. Drlg. 6,830 ft.
Standard Oil Co. No. 1 Sarah Harvey, SW SW SW sec. 33-16s-26w. Drlg. 4,894 ft.

**Miller County—Rodessa**

McClanahan et al No. 1 W. L. Capps, sec. 11-20-28. T.D. 6,103 ft. (cor.); flowing and testg., 33 B.P.H.

**Nevada County**

Benedum & Trees No. 1 Grove, sec. 10-14-20. P.B. from 6,133 ft. to 2,175 ft.; W.O.C.S.

**Ouachita County**

Copenhaver Oil Corp. No. 1 J. E. Evans, sec. 20-11-19, 10-in. cmt. 103 ft.

**Pulaski County**

A. L. Kitselman No. 2 Kitselman, Jr., SE SE SW sec. 2-1s-13e. S.D. 844 ft.

**Union County—Schuler**

E. M. Jones et al No. 1 First Natl. Bank, NW NE NE sec. 19-18-17. Drlg. 1,950 ft.
Ed. M. Jones et al No. 1 C. H. Murphy, NW lot 6 NW¼ sec. 19-18-17. R.U.
Ed. M. Jones et al No. B-1 Murphy Land Co., SW SE NE sec. 13-18-18. Drk.
Lion Oil Rfg. Co. No. A-1 M. D. Justiss, NE NW NE sec. 19-18-17. R.U.
Lion Oil Co. No. B-1 Edna Morgan, SW NW SE sec. 18-18-17. P.B. 5,827 ft. to 5,792 ft.; W.O.C.S.
Lion Oil Ref. Co. No. 2-A Edna Morgan, NW NE SW sec. 18-18-17. Drlg. 800 ft.
Lion Oil Ref. Co. No. 3-A Edna Morgan SE Lot 1, SW sec. 18-18-17. R.U.
Lion Oil Ref. Co. No. 2-B Morgan, NE NW SE sec. 18-18-17. Drlg. 3,220 ft.
Marine Oil Co. No. 1 fee, NW SW SW sec. 17-18-17. Drlg. water well.
Phillips Pet. Co. No. 1 E. Gan, SW SE NE sec. 18-18-17. R.U.
Phillips Pet Co. No. 2 E. Gan, SE SW NE sec. 18-18-17. R.U.
Phillips Pet. Co. No. 1 M. Justiss, SE Lot 6, NW sec. 18-18-17. Drlg. 3,073 ft.
Phillips Pet. Co. No. 2 M. Justiss, NE Lot 2, SW sec. 18-18-17. Drlg. 1,890 ft.
Alice Sydney Oil Co. No. 1 Pewledge Est., SW SW SE sec. 7-18-17. Drlg. 3,890 ft.
Alice Sydney Oil Co. No. 2 Morgan, sec. 18-18-17. Drlg. 813 ft.

**Union County—Other**

Sklar Oil Corp. No. 1 W. T. Fitzgerald, SW NW SW sec. 8-18-15. 7-in. cmt. 2,098 ft.; T.D. 2,140 ft.; W.O.C.S.
W. D. Wingfield et al No. 1 So. Kraft Corp., SW NE sec. 18-16-14. Cg. 3,426 ft.

# TEXAS

Week Ending June 26

## GULF COAST FIELDS

**Hastings—Brazoria County**

Humble O. & R. Co. No. 2 J. T. Baker, Perry & Austin Sur. T.D. 6,080 ft.; 5½-in. csg. 6,030 ft.; incr. 530 B.P.D., ¼-in. choke.
Humble O. & R. Co. No. 14-A Cecil Brown, W. H. Snyder Sur. T.D. 6,090 ft.; I.P. 516 B.P.D., ¼-in. choke.
Humble O. & R. Co. No. 3 R. D. Haden. T.D. 6,113 ft.; I.P. 498 B.P.D., ¼-in. choke.
Humble O. & R. Co. No. 1 Knack, Perry & Austin Sur. R.U.
Humble O. & R. Co. No. 1 South Texas Grain Co., Perry & Austin Sur. T.D. 6,080 ft.; I.P. 25 B.P.H., ¼-in. choke.
Humble O. & R. Co. No. 1 W. H. Schindler, H.T.&B. Sur. No. 30. R.U.
Stanolind O. & G. Co. No. 3 R. L. Autrey, H.T.&B. Sur. No. 37. T.D. 6,080 ft.; 7-in. csg. 5,916 ft.
Stanolind O. & G. Co. No. 4-A Avitts, A.C H.&B. Sur. No. 1. R.U.
Stanolind O. & G. Co. No. 2 Mary Condon, H.T.&B. Sur. No. 29. 10¾-in. csg. 1,644 ft. T.D. 6,080 ft.; run csg.
Stanolind O. & G. Co. No. 4 Curkett, H.T. &B. Sur. No. 30. T.D. 6,080 ft.; 7-in. csg. 5,808 ft.
Stanolind O. & G. Co. No. 8 Curkett, H. T.&B. Sur. No. 35. T.D. 6,080 ft.; 7-in. csg. 5,998 ft.
Stanolind O. & G. Co. No. 10 Drake, H. T. &B. Sur. No. 36. Drlg. sd. & L. 4,455 ft.
Stanolind O. & G. Co. No. 3 T. C. Edwards, Wm. Henry Sur. T.D. 6,080 ft.; 7-in. csg. 6,010 ft.; I.P. 627 B.P.D., ¼-in. choke.
Stanolind O. & G. Co. No. 5 Grote. A.C. H.&B. Sur. 10¾-in. csg. 1,673 ft.; T.D. 6,080 ft.; 7-in. csg. 5,945 ft.; I.P. 663 B.P.D., ¼-in. choke.
Stanolind O. & G. Co. No. 6 Emil Grote, A.C.H.&B. Sur. Sh. 3,309 ft.
Stanolind O. & G. Co. No. 1-C Heram Moore, R. A. Magle Sur. R.U.
Stanolind O. & G. Co. No. 2 McKibben, H.T.&B. No. 29. 10¾-in. csg. 1,221 ft.; W.O.C.
Stanolind O. & G. Co. No. 3 L. F. McKibben, H.T.&B. Sur. No. 29. T.D. 6,055 ft.; I.P. 655 B.P.D., ¼-in. choke.
Stanolind O. & G. Co. No. 2 Moore and Rassmussen, A.C.H.&B. Sur. T.D. 6,098 ft.; 5¾-in. csg. 6,073 ft.; I.P. 338 B.P.D., ¼-in. choke.
Stanolind O. & G. Co. No. 7 Laura Shaw, H.T.&B. Sur. No. 36. Drlg. sh. 1,135 ft.
Stanolind O. & G. Co. No. 9 Steve Paul, A.C.H.&B. Sur. No. 2. T.D. 6,080 ft.; run csg.; I.P. 259 bbls. in 10 hrs., ¼-in. choke.
Stanolind O. & G. Co. No. 10 Steve Paul. Drlg. sh. 5,004 ft.
Stanolind O. & G. Co. No. 11 Steve Paul, A.C.H.&B. Sur. Drlg. sd. and sh. 4,890 ft.
Stanolind O. & G. Co. No. 12 Paul, A.C.H. &B. Sur. Drk.
Stanolind O. & G. Co. No. 1 Schaefer. T.D. 6,080 ft.; 7-in. csg. 6,003 ft.
Stanolind O. & G. Co. No. 4 Surface, B. B.B.&C. Sur. T.D. 6,090 ft.; I.P. 547 B.P.D., ¼-in. choke.
Stanolind O. & G. Co. No. 1 Thornton. Drlg. sh. 3,470 ft.

**Lockridge—Brazoria County**

Gulf Oil Corp. No. 2 Gibson, J. W. Hall Sur. T.D. 6,378 ft.; 7-in. csg. 6,206 ft.; I.P. 398 B.P.D., ¼-in. choke.
Gulf Oil Corp. No. 2 Fred Reiss, J. W. Hall Sur. Top sd. 6,359 ft.; 7-in. csg. 6,355 ft.; I.P. 440 B.P.D., ¼-in. choke.
Gulf Oil Corp. No. 4-A Wilkes and Smith, J. W. Hall Sur. T.D. 6,375 ft.; 7-in. csg. 6,346 ft.
Gulf Oil Corp. No. 2-A Wood, J. W. Hall Sur. Drlg. sd. and L. 4,887 ft.

**Manvel—Brazoria County**

Texas Co. No. 25 B. W. T. Belcher, H. N. Little Sur. 10-in. csg. 1,176 ft.; drlg. sh. and L. 2,993 ft.
Texas Co. No. 30 H.O.F. A.C.H&B. Sur. Drlg. sh. and L. 5,277 ft.

**Old Ocean—Brazoria County**

Harrison & Abercrombie No. 1 Larsen, C. Breen Sur. R.U.
Harrison & Abercrombie No. 1-A Bernard Ld. & Dev. Co. O.W.D.D.; T.D. 10,059 ft.; twisted off; P.B. and S.T.; T.D. 9,878 ft.; 5-in. csg. 4,845 ft.; perf. csg. 9,827-35 ft.; flowed 288 bbls. first 24 hrs. through ¼-in. choke.
Harrison and Abercrombie No. 4 Bernard River Ld. and Development Co., Charles Breen Sur. 13⅜-in. csg. 1,405 ft.; 9⅝-in. csg. 7,005 ft.; T.D. 10,408 ft. ; 7-in. csg. 10,400 ft.; W.O.C.

**Calhoun—Heyser—Victoria County**

George Echols No. 5 Bennett, J. Galban Sur. 10¾-in. csg. 636 ft.; drlg. sh. 3,115 ft.
Humble Oil & Plymouth Oil Co. No. 8 E. H. Welder, J. M. Rios Sur. Drlg. sdy. sh. 4,868 ft.
Humble O. & R. et al No. 15-B P. H. Welder, A. Sisneros Sur. Drlg. sh. 4,705 ft.
Humble O. & R. Co. No. 15-A P. H. Welder, J. M. Rios Sur. T.D. 5,486 ft.; I.P. 13 B.P.H.
Humble O. & R. Co. No. 6 Welder, J. M. Rios Sur. T.D. 5,463 ft.; I.P. 11 B.P.H., 3/16-in. choke.
Normandie Oil Co. No. 1 J. G. Cook, A. Sisneros Sur. R.U.
Portilla Drilling Co. No. 8-C P. H. Welder, A. Sisneros Sur. Drlg. sh. 2,630 ft.

**Anahuac—Chambers County**

Gulf Oil Corp. No. 2 Pommer, sec. 40, H &T.C. Sur. Drlg. sdy. sh. 2,052 ft.
Humble O. & R. Co. No. 1 W. L. Garth, sec. 68, T.&N.O. Sur. 9⅝-in. csg. 1,020 ft.; abd. 7,477 ft.
Humble O. & R. Co. No. 3 Lord, H.&T.C. Sur., sec. 50. T.D. 7,110 ft.; 5½-in. csg. 7,097 ft.; I.P. 8 B.P.H., ¼-in. choke.
Humble O. & R. Co. No. 5 Marshall, sec. 50, H.&T.C. Sur. T.D. 7,080 ft.; reaming.
Humble O. & R. Co. No. 17 Tyrell, sec. 52, H.&T.C. Sur. T.D. 7,100 ft.; 5½-in. csg. 7,057 ft.; I.P. 27 B.P.H.
Humble O. & R. Co. No. 8 Zappe, sec. 51, H.&T.C. Sur. T.D. 7,100 ft.; I.P. 13 B.P.H., ¼-in. choke.

**Cotton Lake—Chambers County**

Salt Dome Oil Co. No. 2-A Lawrence, S. Barrow Sur. T.D. 6,518 ft.; 7-in. csg. 6,512 ft.

**Seabreeze—Chambers County**

Sun Oil Co. No. 2 H. O. Acom, H.T.&B. Sur. No. 23. 18⅝-in. csg. 91 ft.; coring sdv. sh. 8,783 ft.
Sun Oil Co. No. 1 Jackson, Yarbo Sur. Drlg. L. rock 6,069 ft.

**Turtle Bay—Chambers County**

Stanolind O. & G. Co. No. 1 Earl R. Davis, Chadrick Burney Sur. T.D. 6,625 ft.; 7-in. csg. 6,601 ft.; flowed 72 bbls. in 3 hrs., ¼-in. choke.
Sun Oil Co. No. 4 Chambers, M. A. Carroll Sur. Drlg. L. 5,889 ft.

**Big Creek—Fort Bend County**

Barnett Pet. Corp. No. 2 J. H. P. Davis B. Nickson Sur. T.D. 3,080 ft.; P.B. and sdtrkd.; coring sd. 3,666 ft.
Gulf Oil Corp. No. 76 Davis, M. Young Sur. T.D. 2,764 ft.; 7-in. csg. 2,725 ft.

**Blue Ridge—Fort Bend County**

Teishaw-Reese and Echelson No. 1 Blakely, E. Drew Sur. R.U.

**Thompson—Fort Bend County**

H. M. Naylor No. 11 S. P. Gehr, S. Kennedy Sur. T.D. 5,393 ft.; I.P. 150 B.P.D. through ⅜-in. choke.
H. M. Naylor No. 11 Gehr, S. Kennedy Sur. T.D. 5,398 ft.; 7-in. csg. 5,280 ft.; I.P. 141 B.P.D. pumping.

**Orchard—Fort Bend County**

Gulf Oil Corp. No. 52 Moore, James Frazier Sur. Coring sd. 4,049 ft.
Gulf Oil Corp. No. 53 Moore, J. Frazier Sur. Drlg. sh. 6,057 ft.

**High Island—Galveston County**

Stanolind O. & G. Co. No. 62-A Cade, M. Fitzsimmons Sur. Coring sh. 5,703 ft.
Stanolind O. & G. Co. No. 1 C. E. Smith, M. Dunman Sur. Drlg. 400 ft.
Stanolind O. & G. Co. No. 15-A Smith, M. Dunman Sur. Drlg. sh. 6,019 ft.

**Dickinson—Galveston County**

Atlantic Ref. Co. No. 1 Lippman, W. G. Banks Sur. T.D. 8,115 ft.
Atlantic Ref. Co. No. 1 Lippman, W. G. Banks Sur. T.D. 8,115 ft.
Gem Oil Corp. of Texas No. 2 W. Way, E. P. Epperson Sur. 6⅝-in. csg. 8,191 ft.; abd. 8,891 ft.
Humble O. & R. Co. No. 19-A Maco Stewart, W. K. Wilson Sur. T.D. 8,984 ft.; 7-in. cs⅛. 8,962 ft.; perf. csg. 8,565-75 ft.; tested gas and S.W.; P.B. 8,546 ft.
Humble O. & R. Co. No. 20-A Stewart, W. K. Wilson Sur. Drlg. 1,273 ft.
Humble O. & R. Co. No. 8-B M. Stewart W. Wilson Sur. T.D. 9,463 ft.; P.B. 8,380 ft.; I.P. 144 B.P.D.
Humble O. & R. Co. No. 1-C Stewart, W. K. Wilson Sur. R.U.
W. E. McKinney et al No. 3-A Galveston-Houston Elec. R.R., W. K. Wilson Sur T.D. 8,510 ft.; P.B. to sdtrk.; sdtrkd. at 8,300 ft.; P.B. to 7,500 ft.; T.D. 8,839 ft.; 6⅝-in. csg. 8,829 ft.; perf. csg. 8,769-96 ft.; I.P. 32 B.P.H., ¼-in. choke.
Pan American Prod. Co. No. 3 Craig, W. K. Wilson Sur. T.D. 9,000 ft.; 7-in. csg. 8,430 ft.; perf. csg. 8,010-24 ft.; comp. for gas well.
Pure Oil Co. No. 2-B Shelor, W. G. Banks Sur. Drlg. sh. 5,211 ft.
Stanolind O. & G. Co. No. 7 State. 13⅜-in. csg. 2,013 ft.; T.D. 6,472 ft.; 9⅝-in. csg. 6,090 ft.; drlg. sdy. L 7,809 ft.
Turman Oil Co. No. 2 Stewart, W. K. Wilson Sur. Drlg. sh. and L. 8,150 ft.

**Batson—Hardin County**

Dee-Tee Drlg. Co. No. 1 Melhome, J. Melhome Sur. T.D. 3,493 ft.; reaming to set csg.

**Silsbee—Hardin County**

Humble O. & R. Co. No. 1 Kirby, G. W. Brooks Sur. T.D. 6,989 ft., S.W. sd.; 5½-in. csg. 6,986 ft.; W.O.C.
Republic Prod.-Houston Oil Co. No. 16 Brooks, G. W. Brooks Sur. T.D. 6,915 ft.; 7-in. csg. 6,898 ft.
Republic Prod. Co.-Houston Oil Co. No. 13 Brooks. T.D. 6,980 ft.; 7-in. csg. 6,975 ft.; testing.
Republic Prod. Co.-Houston Oil Co. No. 17 Brooks, G. W. Brooks Sur. 10¾-in. csg. 1,714 ft. Drlg. sh. 4,730 ft.

**Bammel—Harris County**

Geo. Lawrence No. 2 Zapp, J. Farwell Sur. R.U.

**Clinton—Harris County**

Stanolind O. & G. Co. No. 1 Candelari, O.W.D.D.; cutting and pulling drill pipe to workover.
Stanolind O. & G. Co. No. 1 D. A. Oates, C. Martinez Sur., Abst. 543. 9⅝-in. csg. 6,771 ft.; P.B. and sdtrkd.; drld. to 8,075 ft.; P.B. 6,600 ft. tested S.W.; abd.

**Goose Creek—Harris County**

Bob Foster No. 1 Esenhour. Wm. Scott Sur. T.D. 2,741 ft.; running csg.

**Pierce Junction—Harris County**

Gulf Oil Corp. No. 13-C Cain, J. Hamilton Sur. Drlg. sh. 3,378 ft.

**South Houston—Harris County**

Humble O. & R. Co. No. 2 C. E. Black, J. Pruitt Sur. Drlg. 4,941 ft.
Humble O. & R. Co. No. 7 Holderrieth, J. Pruitt Sur. Loc.
Stanolind O. & G. Co. No. 1 Bennett, Unit 13, H.T.&B. Sur. No. 6. 16-in. csg. 90 ft. T.D. 4,800 ft.; 6⅝-in. csg. 4,673 ft.; comp., no gauge.
Stanolind O. & G. Co. No. 2, Dist. No. 23. T.D. 4,133 ft.; P.B. 2,200 ft.; T.D. 4,062 ft.; 5¾-in. csg. 4,031 ft.; killed; prep. to P.B.
Texas Co. No. 4 Hillegiest, J. House Sur. Drk.

**Tomball—Harris County**

Humble O. & R. Co. No. 2 Heeck, Wm. Heird Sur. Drlg. sh. 1,530 ft.
Humble O. & R. Co. et al No. 16 Reid, Goodrick Sur. R.U.
Humble O. & R. Co. No. 2 Black, J. Pruitt Sur. T.D. 5,565 ft.; run csg.
Humble O. & R. Co. No. 1-B Jurgens. Drlg. sh. 5,400 ft.
Southwest Inv. Co. No. 3 Hillegiest, J. Hause Sur. S.D. 70 ft.

**Amelia—Jefferson County**

Humble O. & R. Co. No. 1 Bridges, A. S. Avery Sur. T.D. 6,778 ft., 5½-in. csg. 6,773 ft.; I.P. 591 B.P.D., ¼-in. choke.
Humble O. & R. Co. No. 1 Burford, C. Williams Sur. Drlg. 1,312 ft.
Humble O. & R. Co. No. 1 Charpect, C. Williams Sur. Drlg. 1,210 ft.
Humble O. & R. Co. No. 2 Fitzgerald, C. Williams Sur. T.D. 6,777 ft.; run Schlumberger.
Humble O. & R. Co. No. 2 Gaspard, H. Savey Sur. T.D. 6,779 ft.; 5½-in. csg. 6,773 ft.
Humble O. & R. Co. No. 5 Langham, C. Williams Sur. 9⅝-in. csg. 1,025 ft.; drlg. sh. 3,939 ft.
Humble O. & R. Co. No. 4 Quinn, C. Williams Sur. T.D. 6,778 ft., 5½-in. csg. 6,775 ft.; I.P. 648 B.P.D., ¼-in. choke.
Humble O. & R. Co. No. 5 Guinn, C. Williams Sur. R.U.
Humble O. & R. Co. No. 1 Mulligan, C. Williams Sur. T.D. 6,803 ft.; P.B. 6,778 ft.; 5½-in. csg. 6,797 ft.; perf. csg. 6,780-83 ft.; testing.
Humble O. & R. Co. No. 7 Peveto, C. Williams Sur. T.D. 6,778 ft.; 5½-in. csg. 6,775 ft.
Humble O. & R. Co. No. 3 Phelan, C. Williams Sur. Drlg. sd. 6,745 ft.
Humble O. & R. Co. No. 1 Shelby, A.

Savey Sur. T.D. 6,779 ft.; 5½-in. csg. 6,775 ft.
Humble O. & R. Co. No. 1-C Tyrell-Combest, A. Savey Sur. T.D. 6,779 ft.; 7-in. csg. 6,779 ft.
Glenn H. McCarthy No. 7 Longe, H. Williams Sur. R.U.
Glenn H. McCarthy No. 3-A Longe, H. Williams Sur. Drlg. sh. 5,310 ft.
Stanolind O. & G. Co. No. 2 W. P. McCormick, H. Williams Sur. T.D. 5,388 ft.; 7-in. csg. 5,363 ft.; I.P. 542 B.P.D., ¼-in. choke.
Stanolind O. & G. Co. No. 3 W. P. McCormick, H. Williams Sur. R.U.
Stanolind O. & G. Co. No. 3 Sargl. H. Williams Sur. T.D. 5,402 ft.; 7⅝-in. csg. 5,383 ft.
Stanolind O. & G. Co. No. 4 Sargl. H. Williams Sur. T.D. 6,106 ft., oil sd.
Stanolind O. & G. Co. No. 5 Sargl. H. Williams Sur. Drlg. sd. and sh. 4,963 ft.
Sun Oil Co. No. 1 Galley, Houston Sur. 16-in. csg. 107 ft.; drlg. sh. and L. 3,050 ft.

**Big Hill—Jefferson County**

Stanolind O. & G. Co. No. 2-B Pipkin, Wm. McFadden Sur. Drlg. sh. and L. 4,326 ft.
Stanolind O. & G. Co. No. 2 May Fitzhugh, Wm. McFadden Sur. Drlg. sd. and L. 1,937 ft.
Stanolind O. & G. Co. No. 4-A Pipkin T.&N.O. Sur. Drlg. sd. and L. 3,210 ft.

**Fannett—Jefferson County**

Gulf Oil Corp. No. 8 Junker, Wm. Smith Sur. 10¾-in. csg. 1,948 ft.; drlg. sd. and L. 4,875 ft.

**LaBelle—Jefferson County**

Sun Oil Co. No. 1 John Ward, 933 ft. S of No. 2 Broussard, Wm. Burton Sur. 18⅝-in. csg. 109 ft.; T.D. 8,598 ft.; 9⅝-in. csg. 8,538 ft.; core sh. 9,672 ft.

**Nome—Jefferson County**

Shell Pet. Corp No. 3 "B" Unit, M. E. Peveto Sur. Drlg. 100 ft.
Shell Pet. Corp. No. 3 Texas Public Service Co., W. Aldridge Sur. T.D. 6,050 ft.; I.P. 326 B.P.D., ¼-in. choke.
Sun Oil Co. No. 1 Tindell, A. Horton Sur. Core sh. 6,008 ft.
Sun Oil Co. No. 9 Paggi, J. W. Kirby Sur. Drlg. sh. 1,837 ft.

**Cleveland—Liberty County**

Gulf Oil Corp. No. 18-C Kirby, J. Pleasant Sur. T.D. 5,886 ft.; 7-in. csg. 5,880 ft.; failed to flow, rocking with gas.

**Esperson—Liberty County**

General Crude Oil Co. No. 30 Moores Bluff, M. Denman Sur. T.D. 2,946 ft.

**Hankamer—Liberty County**

Gulf Oil Co. No. 25 E. W. Boyt, Amos Allen Sur. T.D. 1,226 ft.; run surf. csg.

**Hardin—Liberty County**

Jack Frazier No. 1 Roberts, H. B. Johnston Sur. Drk.

**Hull—Liberty County**

Bishop Oil Co. No. 1 C. R. Wilson, J. Devore Sur. Oil sd. 780-88 ft.; T.D. 4,127 ft.; 7-in. csg. 2,204 ft.; perf. csg. 2,286-90 ft.; P.B. and strkd.; S.D. 2,276 ft.
Gulf Oil Corp. No. 24 Baldwin, J. Devore Sur. R.U.
Hamil and Smith No. 1 Barngrover, J Devore Sur. T.D. 6,631 ft.; perf. csg. 5,705-5,806 ft.; swbg.; I.P. 211 B.P.D. pumping.
Houston Prod. Co. No. 1 Hannah fee, J. Devore Sur. T.D. 4,982 ft.; 7-in. 4,980 ft.; I.P. 857 B.P.D., ¼-in. choke.
Republic Prod. Co. No. 162 Dolbear, J. Devore Sur. T.D. 2,960 ft.; P.B. and sdtrkd.; T.D. 3,277 ft.; 7-in. csg. 2,916.
Texas Co. No. 7 Hannah fee, J. Devore Sur. Drlg. sh. and L. 4,682 ft.

**Bay City—Matagorda County**

Hamman Expl. Co. No. 2 Cleveland, E. Hall Sur. T.D. 8,182 ft.; 7-in. csg. 8,173 ft.; perf. csg. 8,154-64 ft.; flwd. P.L.O. and S.W.; perf. csg. 8,154-60 ft.; I.P. 256 B.P.D., ¼-in. choke.

**Buckeye—Matagorda County**

United North & South Development Co. No. 1 G.B.M. Cotton League. 13⅜-in. csg. 1,530 ft.

**Palacios—Matagorda County**

Glenn H. McCarthy No. 1 Foley Land Co., L. Goodwin Sur. T.D. 8,068 ft.; P.B. and strkd.; stuck drill stem at 8,000 ft.; plugged back to sidetrack.
Sun Oil Co. No. 1 Bay Shore Farms, Lewis Goodwin Sur. 13⅜-in. csg. 1,910 ft.; drlg. sh. 3,430 ft.

**Hawkinsville—Matagorda County**

Sun Oil Co. No. 2 Craig, T. Williams Sur. Top salt 796 ft.; base salt 2,099 ft.; 18⅝-in. csg. 2,174 ft.; 13⅜-in. csg. 3,700 ft.; 9⅝-in. csg. 5,689 ft.; T.D. 5,969 ft.; hole cleaned; P.B. and sdtrkd.; T.D. 6,040 ft.; running 7-in. csg.

**Van Vleck—Matagorda County**

Skelly Oil Co. No. 2 Johnson, M. Cummins Sur. Coring sd. 8,050 ft.

**Segno—Polk County**

J. K. Dorrance No. 2 Wing, I.&G.N. Sur. No. 15. 7-in. csg. 5,185 ft.; T.D. 5,301 ft.; S.W. sd.; P.B. 5,204 ft.
J. K. Dorrance No. 3 Wing, I.&G.N. Sur. No. 15, 10¾-in. csg. 709 ft.; coring 5,295 ft.
Gulf Oil Corp. No. 1 Ragan, I.&G.N. Sur. No. 15. T.D. 6,013 ft.; P.B. 5,460 ft. to straighten hole.
Humble O. & R. Co. No. 4-B Kirby, Marcell Victor Sur. T.D. 5,335 ft. oil sd.; 7-in. 5,320 ft.; I.P. 21 B.P.H., ¼-in. choke.
Humble O. & R. Co. No. 5-B Kirby Lbr. Co., M. Victor Sur. R.U.

**Quintana-O'Connor-Greta—Refugio County**

Illinois Pet. Co. No. 5 Heard, Ximines Sur. Drlg. 5,618 ft. No report.
Nordan and Morris No. 7 O'Connor, J. Hewitson Sur. T.D. 5,925 ft.; I.P. 536 B.P.D., ¼-in. choke.
Quintana Pet. Co. No. 50-A Tomoconnor, Blk. 8, Swisher Sur. T.D. 5,950 ft.; I.P. 780 B.P.D.
United Gas Corp. No. 53 Lambert, Swisher Sur. T.D. 5,915 ft.; 7-in. 5,905 ft.
United Gas Co. No. 54 Lambert, J. M. Swisher Sur. Drlg. sh. 5,250 ft.
United Gas Corp. No. 55 Lambert, Swisher Sur. Drlg. 5,423 ft.
United Gas Corp. No 12 J. J. O'Brien T.D. 9,225 ft.; perf. liner 8,103-8,128 ft.; testing.

**Spurger—Tyler County**

Republic Production Co.-Houston O. Co. No. 3 Hurd, N. Hurd Sur. 10¾-in. csg. T.D. 7,640 ft.; 7-in. csg. 7,630 ft.; drlg. plug.

**Keeran—Victoria County**

Gulf Oil Corp. No. 11 J. M. Keeran, M. DeLeon Sur. T.D. 6,361 ft.; tstd. S.W.; squeezed off perf.; abd.
Union Oil Co. No. 5 Keeran, M. DeLeon Sur. Drlg. sh. 5,310 ft.

**McFadden—Victoria County**

Transwestern Oil Co. No. 3 J. A. McFadden, Julus Varian Sur. T.D. 6,213 ft.; ran Schlumberger survey.

**Placedo—Victoria County**

Barnsdall Oil Co. et al No. 19 Pickering-Roos, S.A.&M.G. Sur. 10¾-in. csg. 881 ft.
Barnsdall-American Liberty Oil Co. No. 10 J. M. Pickering, Wm. Rupley Sur. T.D. 7,243 ft.; perf. csg. 5,280-92 ft.; comp. for gas well.
Barnsdall Oil Co.-American Liberty Oil Co., S.A.&M.G. Sur. R.U.
Lion O. & R. Co. No. 3 S. W. Wright, S.A.&M.G. Sur. T.D. 4,775 ft.; R.U. to pmp.
Magnolia Pet. Co. No. 9 Chas. Sklar, S.A. &M.G. Sur. T.D. 4,777 ft.; 7-in. csg. 4,764 ft.; P.B. 4,775 ft.; W.O.C.
H. B. Ownby No. 6 Traylor, S.A.&M.G. Sur. R.U.
H. B. Ownby No. 7 T. T. Traylor, S.A.& M.G. Sur. No. 7. T.D. 4,774 ft.; 5½-in. csg. 4,758 ft.; completing.
Salt Mount Oil Corp. No. 1 O. A. Lola, Wm. Rupley Sur. T.D. 4,806 ft.; 7-in. csg. 4,805 ft.; pumped 60 B.P.D.
Shell Pet. Corp. No. 5 Houston Natl. Bank, S.A.&M.G. Sur. Drlg. sh. 5,896 ft.

**Clay Creek—Washington County**

Oak Oil Corp. No. 1 G. Cockrell, J. F. Perry Square Sur. T.D. 1,365 ft.; W. O.C.
Sun Oil Co. No. 6 Droger, J. Perry Sur. Drlg. salt 4,809 ft.

**Five Corners—Wharton County**

Texas Co. No. 7-B Pierce Est., J. Caldwell Sur. T.D. 5,555 ft.; 7-in. csg. 5,554 ft.; flwd. oil and S.W.; squeezed off bttm. with cmt.; flwd. 75% S.W.; killed; reset screen; swabbed S.W.; pulling screen; set retainer 5,524 ft.; testing.

**Louise—Wharton County**

Pure Oil Co. No. 4 Houston, T. W. Hurd Sur. Drlg. 1,020 ft.

**Magnet—Wharton County**

Atlantic Ref. Co. No. 1-B H. C. Cockburn, J. Smith and McKenzie Sur. T.D. 5,540 ft.; oil sd.; 7-in. csg. 5,540 ft.; perf. csg. 5,533-37 ft.; flowed some oil and gas; set retainer at 5,526 ft.; squeezed off perf.; reperf. csg.
Humble O. & R. Co. No. 1 Cockburn, S. Castleman Sur. 10¾-in. csg. 1,236 ft.
W. W. Van Allen-Texas Crusader No. 1 Sweet, J. Smith and McKenzie Sur. T.D. 5,550 ft.; oil sd.; 7-in. 5,531 ft.; perf. csg.; I.P. 158 B.P.D. through ⅝-in. choke.

**Pickett Ridge—Wharton County**

Texas Co. No. 33-A Pierce Est., G.B.&N Sur. No. 4; 9,000-ft. test. Drlg. sh. and L. 6,892 ft.

**Withers—Wharton County**

Texas Crusader Oil Co. No. 1-B Evelyn Sweet, Lot 4, Blk. 84, Smith & McKenzie Sur. R.U.
Texas Co. No. 34-C Pierce Estate, Wm. Pettus Sur. Drlg. sh. 3,662 ft.

## GULF COAST WILDCATS

**Austin County**

Cockburn Oil Corp. No. 1 Bartay-Mott and Steno, S.S.E.Y. Sur. 10¾-in. csg. 360 ft.; S.D. 2,596 ft.

**Brazoria County**

Pure Oil Co. No. 1 P. M. Slade, S. F. Austin Lge. T.D. 7,842 ft.; hole cleaned; repair rig.
Texas Co. No. 2 Robbins, James W. Brougham Sur. 13⅜-in. csg. 5,498 ft.; 9⅝-in. csg. 6,060 ft.; T.D. 7,465 ft.; reaming.

**Colorado County**

Coyle & Concord No. 3-B Powell, I.&G.N. Sur. No. 45. R.U.

**Fort Bend County**

Research, Inc., No. 1 Moore, S. Kennedy Sur. Drlg. sh. 3,830 ft.
Dick Schwab and Gem Oil Co. No. 1 David Fitzgerald Sur. 10¾-in. csg. 1,058 ft.; drlg. sh. 1,765 ft.
Trone No. 2 Trone, H.&T.C. Sur. No. 67. T.D. 909 ft.; comp. for gas well.

**Harris County**

Humble O. & R. Co. No. 1 Settegast, Perry and Austin Sur. Drlg. sh. 5,563 ft.
Superior Oil Co. No. 1 Butler, Eehrhardt Sur. Drlg. sh. and L. 9,104 ft.

**Jackson County**

Cockburn and Hargrove No. 1 Ward Properties, I.&G.N.R.R. Sur., sec. 23. Drlg. sh. 5,394 ft.
George W. Greet et al No. 1 J. R. Davis, David Hoffman Sur. Drlg. L. 4,925 ft.

**Jefferson County**

Magnolia Pet. Co. No. 1 J. H. Phelan, T.&N.O. Sur. No. 14. 13⅜-in. csg. 3,016 ft.; T.D. 8,573 ft. (corrected); 7-in. csg. 8,440 ft.; P.B. 8,440 ft.; flowed 392 bbls. of distillate in 22 hrs. through ¼-in. choke.
H. E. Hebert and Smith No. 1 Broussard, H.T.&B. Sur., sec. 10. Drlg. sdy L. 4,163 ft.

**Liberty County**

Jack Frazier et al No. 1 B. F. Haoachy, Hughes B. Johnson Sur. 10¾-in. csg. 1,143 ft.; T.D. 7,612 ft.; tested 400 lbs.; 7-in. csg. 7,600 ft.; I.P. 26 B.P.H., ¼-in. choke.

**Matagorda County**

Continental Oil Co. No. 2 Hawkins Est., D. McCarty Sur. 20-in. csg. 120 ft.; 11¾-in. csg. 5,409 ft.; drlg. plug.
Royal O. & G. Corp. No. 1 T. J. Ewing, Burnett and Sojouner Sur. Drlg. sh. 7,410 ft.

**Montgomery County**

C. E. Gates No. 1 South Texas Long Leaf Lbr. Co., Walker Co. Sch. Ld. T.D. 6,251 ft.; abd.
Texas Co. No. 1 Crawford, Y. Springer Sur. Drlg. sh. 1,425 ft.

**San Jacinto County**

Cockburn Oil Corp. et al No. 1 Whitten, Wm. West Sur. T.D. 5,602 ft.; drill stem stuck.

**Tyler County**

McArthur & Nixon No. 1 Kountze, J. A. Hankins Sur. Drlg. sh. 2,830 ft.

**Washington County**

K. D. Harrison and C. E. Starr No. 1 Charles and Wm. Ellerman, Wm. Bridges Lge. 13-in. csg. 290 ft.

## S. W. TEXAS WILDCATS

**Aransas County**

Barnsdall Oil Co. No. 2 Kate Edwards, 330 ft. S line, Lot 85, 660 ft. SW No. 1, Wm. Lewis Sur. Drlg. 8,704 ft.
Danray Oil Co. No. 1 Davis, Tr. 5, Wm. Boyd Sur. Drlg. 8,855 ft.

**Atascosa County**

L. G. Priest No. 1 Bridwell, Tr. 45, Gorman Sur. Drlg. 1,721 ft.

**Bastrop County**

Sure Oil Co. No. 1 Powell, Welchmeyer Sur. D.&A. 2,306 ft.
R. Pulliam No. 1 Yoast, Garcia Sur. R.U.
Marts & Beavens No. 1 Kennard, G. Glasscock Sur. R.U.

**Bee County**

Butler & Turner No. 1 Scott, Sec. 7, Howeth & Singer Sur., Uranga Gr. D.&A. 5,009 ft.
J. J. Cosner No. 1 Franklin Life, Morena Gr. Spdg.
J. R. Dougherty No. 2 Hicks, H. George Sur., Uranga Gr. Cg. 4,387 ft.

**Bexar County**

L. & K. Oil Co. No. 1 Russell, Rodriguez Sur. R.U.

**Blanco County**

E. L. Nixon No. 1 Hornberger, 1,200 ft. S line, 300 ft. E line, Sur. 723. Reaming 1,216 ft.

**Brooks County**

Standard of Tex. No. 1 Mestina, Mestina Lse. No. 3. Cg. 6,299 ft.

**Burleson County**

Cook Drlg. Co. No. 1 Money. Drlg. 1,950 ft.

**Caldwell County**

F. & W. Drlg. Co. No. 1 Rodenberg, J. Berry Sur. Set csg. 2,014 ft.; W.O.C.
E. H. Grazer No. 1 Field, Dikes Sur. T.D. 1,965 ft.; swbg. oil.
Housel Oil Co. No. 1 Driscoll, S.D. 1,520 ft.
J. O. Mack, Jr., No. 1 Withers, Wm. House Sur. Drlg. sh. 627 ft.
C. R. Richardson No. 1 Patterson, S. Pettus Sur. Set csg. 780 ft.
G. C. Richardson No. 1 Trammel, E. Berry Sur. R.U.
Lee Ross No. 1 Daugherty, John Tyler Sur. Drlg. 556 ft.
Sherman Nelson No. 1 Etheridge, T. Hunter Sur. T.D. 2,180 ft.; R.U.; W.O.O.

**Cameron County**

Ruez-Morton No. 1 United Land Irr. Co., Lot 7, Blk. 402, El Jardin Subd. Drlg. 4,112 ft.
Saxet Prod. Co. No. 1 Port Isabel Irr. Co. 600 ft. N line Loma Alta Lake, Sh. 29, Espiritu Santa Gr. Abd. loc.
Stapper Petroleum Corp. No. 1 Port Isabel Irrigation Co., Blk. 17, P.I.I.Co. Subd. Stanto Gr. S.D. 8,000 ft.

**Dimmitt County**

Wilcox O. & G. Co. No. 1 Light ranch, 330 ft. N and E line, sec. 67. Drlg. 7,356 ft.

**Duval County**

Govt. Wells Oil Co. No. 2 Lundell, sec. 140. Drlg. 421 ft.
King Drlg. Co. No. 1 Parr, San Andres Gr. Reaming 5,386 ft.
Liberty Oil Co. No. 1 State, Sur. 216. Drlg. sh. 1,280 ft.
Magnolia Pet. Co. No. 1 Well, Sur. 565, Sd. 2,799-2,812 ft.; tested S.W.; drlg. 3,507 ft.

**Edwards County**

Amon G. Carter No. 1 Sweeten, Blk. 2, sec. 49. Drlg. 197 ft.
Auld, Dodson & Lyman No 1 Rigsby, sec. 16. S.S.O. 3,920-22 ft.; tstd. wtr.; D.&A. 3,952 ft.

**Frio County**

Amerada Pet. Corp. No. 1 Harriman Flores Sur. 306. Lost hole; T.D. 6,410 ft.; S.O.; rng. csg.
Pagenkoff & Jamieson No. 2 Blackaller, Gourley Sur. 765. Drlg. 250 ft.

**Goliad County**

Goliad Oil Co. No. 2 Cole, lot 33, Goliad Town. Tr. Sur. Set protective csg. 1,500 ft.; to drill ahead.

**Guadalupe County**

Fair et al No. 1 Hemple, Williams Sur. T.D. 2,076 ft.; S.D.; oil and wtr. in hole.
Lincoln Pet. Co. No. 1 Baenzinger, Mansola Sur. Set csg. 1,990 ft.; drlg. plugs.
Robertson et al No. 1 Blumberg, M. Baker Sur. Drlg. 1,026 ft.

**Jim Wells County**

Magnolia Pet. Co. No. 7 Seeligson, 10,433-ac. tr., Los Jaboncillos Gr. D.S.T. 5,380-86 ft. rec. 17 ft. dist. W.P. 200 lbs. Prep. retest. D.S.T. 5,469-79 ft.; rec. 5 ft. dist. in 3½ min.; cg. ahead 5,487 ft.
Wellington Oil Co. No. 1 C. D. Sevier, 5,877 ft. E line, 5,525 ft. S line, Lola Gr. Fsg. 5,600 ft.

**Kendall County**

Landon & Peffley No. 1 Seidensticker, Sur. 257, Chorcon Gr. R.U.
Claude Smith No. 1 Gerfers. D.&A.; T.D. 1,076 ft.

**Lee County**

Elaussa Oil Co. No. 1 Saunders, Von Reeder Sur. Set csg. 3,672 ft.; T.D. 3,675 ft.; prep. swb.
Jas. E. Pederson No. 1 Turner, David Hudson Sur.; W.O. T.D. 6,560 ft.; clg. out.

**Live Oak County**

Loma Oil Co. No. 1 Schwartz, McKilley Sur., Abst. 19. Spudded.
Loma Oil Co. No. 1 Terrill, Houlihan Sur. D.&A. 1,186 ft.

**McMullen County**

Edwards, Zock et al No. 1 Two Rivers Ranch Co., 150 ft. S and W lines, SE¼, sec. 60. Spudded.
Howell Oil Corp. No. 1 Martin, Sur. 213. S.D. 2,375 ft.
W. L. Hinds No. 1 Rhodes, NE¼, NW¼ sec. 54. S.D. 600 ft.
E. M. Jones No. 3 Ezell, SE¼, sec. 3, Ezell ranch. D.S.T. 1,533-47 ft.; rec. 750 ft. P.L.O. in 15 min. ⅝-in. ck.; rng. csg.; T.D. 1,547 ft.
Rowan & Nichols No. 1 Rhodes, NE¼ sec. 18, Seale & Morris Sur. Drlg. 1,217 ft.
C. C. Shumway No. 10 Shiner ranch, sec. 51, Shumway Subd. Drlg. 1,017 ft.

**Milam County**

Kingdor Expl. Co. No. 1 White, B. Wickson Sur. Drlg. 66 ft.

**Nueces County**

J. K. Culton No. 1 Singer, Lot 13, Blk. 39, Encinal Gardens. Drlg. 6,147 ft.
Gillock et al No. 1 Poenisch, Lot 11 sec. 32, M.I.M.
W. L. Hinds Drlg. & Expl. Co. No. 1 River Bros. 80-ac. tr., sec. 301. Sd. 5,670-90 ft.; S.O.; tstd. S.W.; cg. 5,693 ft.
Mills Bennett Prod. Co. No. 1 Heuerman, C. Land Sur. 408. Drlg. sh. 6,020 ft.
Phillips Pet. Co. No. 1 Harney, Sh. 11, Gregoria Farias Gr. (W.O.). T.D. 6,648 ft.; D.&A.
Seaboard Oil Corp. No. 1-C Chapman, sec. 111, Laureles Farm Lots. W.O. wtr.
Seaboard Oil Corp. No. 1 James Luby, Blk. 4, Mary Luby Subd., Petronilla ranch. T.D. 5,333 ft.; set csg. 5,175 ft.; perfg. 5,045-50 ft.; reperf. 5,048-50½ ft.; D.S.T. 3 hrs.; flowed 8 B.P.H. oil, ¾-in. cks.; W.P. 1,450 lbs.
Southern Minerals Corp. No. 1 R. King, sec. 32, King Farm Lots. Sd. 6,515 ft.; tried to blow out; killed; stuck D.S.; fsg.
Taylor Pet. Co. No. 1 Stiles, Blk. 14, sec. 18, Petronilla ranch. Drlg. 6,917 ft.

**San Patricio County**

Danray Oil Co. No. 1 Davis, Tr. 5, Wm. Boyd Sur. Drlg. 3,026 ft.
Eleanor Oil Co. No. 1 Green Est., 167.4-ac. tr., Williamson Sur.; (W.O.). Old T. D. 6,800 ft.; set 5-in. csg. 7,000 ft.; W.O.C.
Humble O. & R. Co. No. 1 McCampbell 610.62-ac. tr., Martinez Sur. Drlg. sh. 5,570 ft.
Plymouth Oil Co. No. 1-A Odem, subd. 2, A. Herron Sur. Drlg. 2,907 ft.
Wellington Oil Co. No. 1-B Welder, SE¼ sec. 6, Cubage & Miller Subd., Garza Sur. Spudded.

**Starr County**

Calderoni-James-Follette No. 1 Rodriguez, Blk. 6, Sh. 56, Porc. 80. Set sur. csg. 100 ft.; S.D.

Donroy Oil Co. No. 1 Ramon, 2,400 ft. SE line, 150 ft. SW line, sec. 150. Cg. 1,281 ft.
Gilcrease Oil Co. No. 1 Castillo, Sh. 7-D, Porc. 77. Sd. 776-82 ft.; S.G.
Henry Mode et al No. 1 Kelsey-Bass, Blk. 7, Porcs. 86 and 87. T.D. 2,600 ft.; rng. electrical Sur.
Transwestern Oil Co. No. 2 Slick, 330 ft. N and E lines, sec. 527. D.&A. 5,886 ft.

**Webb County**

Bridwell Oil Co. No. 1 Longorio, Sur. 691. Cg. 1,629 ft.
Eugene Garner No. 2 Saldivar, Blk. 12, Sur. 567. Oil sd. 997-1,000 ft.; flwd. 3 B.P.H.; acdzg.; S.D.
O. W. Killam No. 1 Perez, Sur. 1007. D.&A. 2,558 ft.
Lu Tex Oil Co. No. 2-A Lone Star Constr. Co., Porc. 12. T.D. 2,790 ft. S.D.W.O.O.
J. W. Magee No. 1 Garcia, Blk. 21, James Subd. R.U.; S.D.
J. R. B. Moore No. 1 Slator, Blk. 74, Slator Ranch Subd., Borrego Ranch. D.&A. 1,502 ft.
Paul Meaders No. 1 Garcia, Sur. 338. Loc.
J. R. B. Moore No. 1 Slator, Blk. 7½, Slator subd., Borrego Gr. Spdg.
Perkins, Cullen & Achning No. 1 Garza, Sur. 711. Cg. 2,011 ft.

**Willacy County**

Ruez-Morton, Inc., No. 1 F. Armendiaz, C Lot 9, Sh. 4, San Juan de Carricitos Gr. Drlg. 537 ft.
Ruez-Morton, Inc., No. 1 Johnson-Stillman, Lot 14, Blk. 25, Sh. 44, San Juan de Carricitos Gr. S.D. 643 ft.

**Wilson County**

Maryland Oil Co. No. 1 Rice, 93-ac. tr., Mays Sur. T.D. 5,611 ft.; D.&A.
R. C. Stanley No. 2 Heirholzer, R. Salina Sur. O. sd. 1,025-30 ft.; recmtg.

**Zapata County**

Allison & Abrams No. 1 Vela, Sur. 249. Drlg. 617 ft.
Gilcrease Oil Co. No. 2 Trevino, Blk. 12, sec. 8, Porc. 3. T.D. 2,100 ft.; S.D.; W.O.O.
O. W. Killam No. 1 Bruni, Blk. 83, Ranchito Pasture, Borrego Gr. Spd.
J. O. Sheffield No. 1 Buck, Blk. 15, Sur. 273. Cg. 1,975 ft.

## S. W. TEXAS PROVEN

**McCampbell—Aransas-San Patricio Counties**

Atlantic Ref. Co. No. 2 Maryland Trust Co., 330 ft. N and E lines, Blk. 23. Set csg. 6,516 ft.; T.D., sh. 6,552½ ft.; jetting S.W. and oil; (fluid 95% S.W. and 5% oil); sd. 7,078-7,109 ft.; T.D. 7,142 ft.; completing.
Atlantic Ref. Co. No. 1 Porterfield, Lots 9 and 10, Blk. 14. Sd. 7,095-7,105 ft. Comp. 94 B.P.D. on ½-in. ck.; perf. 7,101-05 ft.
Buckingham Oil Co. No. 8-A McCampbell, "A" Lse., Blk. 42. Sd. 7,104-23 ft.; S.G.&O.; set csg. 7,117 ft.; W.O.C.
Buckingham Oil Co. No. 11-A McCampbell, Lot 7, Blk. 41. Drlg. 4,577 ft.
Buckingham Oil Co. No. 12-A, McCampbell, Lot 7, Blk. 42. Drlg. 2,157 ft.
Buckingham Oil Co. No 4-B McCampbell, Lot 16, Blk. 40. Drlg. 3,315 ft.
Collins & Broughton No. 1 McCampbell, Lot 5, Blk. 37 (W.O.). Perf. 7,110-14 and 7,135-38 ft.; tstd. S.W.; S.D.
Landreth Prod. Co. No. 3-A McCampbell, Lot 1, Blk. 40. Sd. 7,110-13 ft.; rng. csg.
Rutherford & Eaton No. 2 Scrivner, Lots 13 and 14, Blk. 11 Drlg. S.W.; sd. 7,106-34 ft.; comp. 21 B.P.H., ¼-in. ck.
Shasta Oil Co. No. 1 Vaughn, Lot 13, Blk. 10. R.U.

**North Dale—Bastrop County**

Easton & Manning No. 1 Duran, S. Flint Sur. Cg. sh. 2,296 ft.
Shobe-Feldot Oil Co. No. 1 Duran, Flint Sur. Comp. 24 B.P.D. oil; 10 B.P.D. wtr.; T.D. 2,303 ft.

**Plummer—Bee County**

Ann Oil Co. No. 2-B Smith, J. R. Johnson, Sur. Drlg. sh. 812 ft.
El Toro Oil Co. No. 1 Robertson, Thos. B. Barton Sur. Drlg. sh. 1,655 ft.
W. C. McBride, Inc., No. 1-B Plummer, Johnson Sur. Plug perf. 3,057 ft.

**West Tuleta—Bee County**

Salt Dome Oil Co. No. 1 Tuleta Mercantile Co., sec. 10, Uranga Gr. T.D. 3,065 ft.; set 5-in. csg. 3,030 ft.; W.O.C.

**Von Ormy—Bexar County**

J. Beard No. 5 Barragan, Simpson Sur. W.O.C. 300 ft.

**Alta Mesa—Brooks County**

Standard of Texas No. 4 Garcia, Lse. 2, Tr. 2, Sh. 1-A, La Mestina y Gonzales Sur. T.D. 2,590 ft.; P.B. 1,202 ft.; comp. gasser.
Standard of Texas No. 5 Mestina, Lease No. 1. D.S.T. 4,516-26 ft. Rec. 60 ft. fluid, 50% clean oil, 50% frothy, mud, oil and S.W.; cg. 4,775 ft.

**Alta Verde—Brooks County**

Bishop & Woods No. 1 Maupin, Sur. 311. Set csg. 50 ft.; S.D. 140 ft.
Lynway Oil Co. No. 1 Singer, Blk. 9, Sur. 436. Sds. 232-34 ft. and 245-47 ft. S.O. S.D. 440 ft.
Dick Young No. 5 Singer, Blk. 12, Sur. 312 (W.O.). Sd. 1,412-20 ft.; S.D.

**Luling-Branyon—Caldwell County**

B. Albright No. 1 Cosey, Henry Sur. R.U.
F. J. Adams No. 3-B Ellison, Jarman Sur. R.U.
Chiquita Oil Co. No. 6 Robertson, Neill Sur. Spd.
Colby Oil Co. No. 3 McCrory, Neill Sur. Comp. 213 B.P.D., ¼-in. ck. T.D. 2,212 ft.
Lincoln Pet. Co. No. 6-B Branyon, Miller Sur. Set 10-in. csg. 26 ft.
Lincoln Pet. Co. No. 6 Brown, Cooper Sur. R.U.
R. Mallory No. 2 Brown, J. R. Miller Sur. R.U.
Sherman Nelson No. 2 Branyon, Miller Sur. Comp. 23 B.P.D. pump; T.D. 2,136 ft.
Rio Bravo Oil Co. No. 14-L Merriweather, J. Henry Sur. Drlg. ch. 1,726 ft.
Sherman Nelson No. 1 Best, Neill Sur. T.D. 2,284 ft.; W.O. pmp.
B. F. Robinson No. 1 Young, Miller Sur. Set csg. 2,180 ft.; W.O.C.
Rosita Oil Co. No. 1 Lockhart State Bnk., J. Roe Sur. Set csg. 2,004 ft. W.O.C.
Spokane O. Co. No. 2 Starcke, Crenshaw Sur. Drlg. 120 ft.
Taylor Ref. Co. No. 4-B Branyon, D. Cooper Sur. Comp. 63 B.P.D., 27% sul. wtr., 5½-in. csg. 2,312 ft.; T.D. 2,322 ft.
S. M. Vaughy No. 2 Clark, J. Miller Sur. Skdg. on.
S. M. Vaughy No. 5 Flowers, Neill Sur. T.D. 2,160 ft.; bailing.

**Buchanan—Caldwell County**

Easton & Manning No. 1 Bozarth, Cannon Sur. Drlg. 1,105 ft.
Edwill Oil Co. No. 1 Brown, Cannon Sur. R.U.
Edwell Oil Co. No. 3-A Cude, Wm. Spillars Sur. R.U.
L. G. Priest No. 1 Chambless, S. Goodman Sur. S.D. 1,000 ft.
R. A. Stamey No. 1 Brown, Cannon Sur. T.D. chalk 2,250 ft.; W.O.C.
Texas Gulf Pet. Co. No. 1 Medlin, Camon Sur. Sat. chalk 2,035-57 ft.: set csg. 2,057 ft.; comp. on pump; no gauge.

**Dunlap—Caldwell County**

Kay Oil Co. No. 1 Dunlap, S. Seale Sur. Chalk 1,928-2,036 ft.; set csg.; S.D.
Sherman Nelson No. 1 Moore, Clinton Sur. R.U.
Stapper Pet. Corp. No. 1 Martin, A. Floyd Sur. T.D. 1,800 ft.; S.D.

**Larremore—Caldwell County**

Lee Ross et al No. 1 Starke, Crenshaw Sur. Set csg. 1,255 ft.; W.O. pmp.

**Salt Flat—Caldwell County**

Chiquita Oil Co. No. 5 Hickman, G. Hinds Sur. Set csg. 2,639 ft.; W.O.C.

**Charamousca—Duval County**

N. V. Duncan No. 9 Worden & Draught, Sur. 151. Comp. on pump 65 B.P.D.; T.D. 1,520 ft.
N. V. Duncan No. 10 Worden-Draught, Sur. 151. Cg. 1,477 ft.

**Colmena—Duval County**

Conservative Oil Co. No. 5 D.C.R.C., Blk. 8, Sur. 52. Sd. 1,435-42 ft.; gas; comp. dry gasser.
Humble O. & R. Co. No. 4-D D.C.R.C., sec. 385. T.D. 1,487 ft.; D.&A.
Humble O. & R. Co. No. 5-D D.C.R.C., sec. 585. Set csg. 1,432 ft.; W.O.C.
Magnolia Pet. Co. No. 1 D.C.R.C., sec. 49. Comp.; gasser; T.D. 1,553 ft.
Texas Co. No. 4-D D.C.R.C., Sur. 583. T.D. 1,604 ft.; tstd. 3,085,000 ft. dry gas; shut in C.P. 480 lbs.
Wellington Oil Co. No. 5 D.C.R.C., Blk. 10, sec. 51. R.U.

**Government Wells—Duval County**

Central Prod., Inc. No. 5 Wendt, sec. 43. Drlg. 2,617 ft.
Central Prod., Inc. No. 5 Luptack, Sur. 41. Set csg. 2,442 ft.; testing sd. 2,443-47 ft.
Humble O. & R. Co. No. 5 Roos, sec. 119. Drlg. sh. 2,038 ft.
Southwest Prod. Co. No. 5 Luptack, sec. 41. Swbg. 2,415 ft.

**Hoffman—Duval County**

Cox & Hamon No. 4-A Green, Sur. 118. Comp. 30 B.P.D.; jetting sd. 2,708-09 ft.
Relience Oil & Rov. Co. No. 3 Ruiz, Sur. 125. D.&A. 2,877 ft.

**Labbe—Duval County**

Humble O. & R. Co. No. 5 Roos, sec. 119. Set csg. 2,822 ft.; W.O.C.
Magnolia Pet. Co. No. 6 Labbe Ranch, Sur. 1. R.U.
Magnolia Pet. Co. No. 5 Labbe, Sur. 1. Sd. 2,850-59 ft.; comp. 480 B.P.D. on ½-in. ck.

**Loma Novia—Duval County**

F. J. Gravis No. 4 Hahl, Sur. 64. R.U.
Hamill & Smith No. 15-C Hahl, Sur. 63. D.&A. 2,579 ft.
Revnosa Oil Co. No. 1-C McLean, Sur. 62. Drlg. 2,717 ft.
Shell Pet. Corp. No. 10 Bishop, Sur. 59. Comp. 11 B.P.H., ⅜-in. ck.; sd. 2,564-76 ft.
Shell Pet. Corp. No. 11 Bishop, Sur. 59. Sd. 2,550-54 ft.; set csg.; W.O.C.
Shell Pet. Corp. No. 12 Bishop, Sur. 59. Drlg. sh. 587 ft.
Texas Co. No. 6-B Ruiz, Sur. 41. Drlg. sh. 2,617 ft.

**North Sweden—Duval County**

Argo Oil Co. No. 1 Carrillo, NE¼, sec. 9. T.D. 4,760 ft.; set csg. 4,746 ft.; W.O.C.
Argo Oil Co. No. 2 Carrillo, E½ SE¼ sec. 9. Drlg. 1,855 ft.
Argo Oil Co. No. 3 Carrillo, E½ SE¼ sec. 9. R.U.
Arkansas Fuel Oil Co. No. 1 Rossi, 330 ft. N and E lines, sec. 10, Sweden Farm Lots. T.D. 4,758 ft.; 7-in. csg. 4,736 ft.; coring.
Arkansas Fuel Oil Co. No. 2 Rossi, Blk. 10. M.I.M.
Benedum & Trees Oil Co. No. 2 Puig, 750-ac. tr., San Andres Gr. Set csg. 4,755 ft.; W.O.C.
Benedum & Trees O. Co. No. 3 Puig, 330 ft. N line, 990 ft. W line lease, San Andres Gr. Drlg. 2,756 ft.
Frank Gravis No. 3 Puig, sec. 24, San Andres Gr. Drlg. 1,756 ft.
Frank Gravis Oil Co. No. 1 Puig, sec. 24, Andres Gr. R.U.
Highland Oil Co. No. 2 Farias, sec. 9, Sweden Subd. Oil sd. 1,803-13 ft.; set csg.; comp. 158 B.P.D. on 5/32-in. ck.; perf. 4,802-11 ft.
Navarro O. Co. No. 1 Rossi, Blk. 11, sec. 35. Drlg. 1,527 ft.
Parr Oil Co. No. 2 Puig, 150-ac. tr., Sur. 24, Santos Flores Gr. Cg. 4,894 ft.
Reynosa Oil Co. No. 2 Wilson, Blk. 9. Drlg. 4,629 ft.
Standard of Kansas No. 1 Parr, San Andres Gr. Cg. sdy. sh. 4,615 ft.

**Palangana—Duval County**

Penn Palangana Oil Co. No. 1 C. K. Gravis Sur. 250. Drlg. 4,510 ft.
Tuttle & Trahan No. 1 Megerle, Sur. 245. S.D. 1,060 ft.

**Piedra Lumbre—Duval County**

Magnolia Pet. Co. No. 11 D.C.R.C., sec. 95. Drlg. 1,937 ft.

**Sarnosa—Duval County**

Sarnosa Oil Corp. No. 16 Weil, sec. 130. O. sd. 2,409-12 ft.; comp.; no gauge.

**Seven Sisters—Duval County**

A. J. Brinkoeter No. 11 Garza, Sur. 212. D.&A. 3,030 ft.
Humble O. & R. Co. No. 19 Dowdy, Sur. 272. Set csg. 2,561 ft.; W.O.C.
Pan American Prod. Co. No. 5-A Welder, Sur. 381. Drlg. 270 ft.
Sun O. Co. No. 1 Rodriguez, 421.7-ac. tr., secs. 221 and 222. Sd. 2,748-54 ft.; set csg.; W.O.C.
Westheimer & Daube No. 33 Campos, Sur. 224. T.D. 2,714 ft.; comp. 130 B.P.D. on ⅝-in. ck.

**Sweden—Duval County**

Hiawatha Oil Co. No. 2 Herberger, SW¼, Blk. 14, Agua Poquita Gr. T.D. 5,914 ft.; P.B. sd. 5,072-91 ft.; perf. 5,080-84 ft.; comp.; no gauge on pump.
Hiawatha Oil Co. No. 2 Miller, sec. 24, Santos Flores Sur. Drlg. 1,327 ft.
Hiawatha Oil Co. No. 3 Southland Life, Blk. 15. Drlg. 2,937 ft.

**Thomas-Lockhart—Duval County**

Thomas Est. & Lockhart No. 3-A Parr, Sur. 26. Sd. 4,686-90 ft.; cg. 4,694 ft.

**Pearsall—Frio County**

Amerada Pet. Corp. No. 1 Halff & Oppenheimer (W.O.). Old T.D. 6,312 ft.; recmtg. csg. 6,314 ft.
Amerada Pet. Corp. No. 8 Halff & Oppenheimer, S. A. Ditch Sur. 1,104 (W.O.). Set 7-in. protective csg. 10,341 ft.; W.O.C.
Amerada Pet. Corp. No. 1 Kothman, B. L. Crouch Sur. (W.O.). Old T.D. 4,370 ft.; T.D. 5,559 ft.; fsg.
Amerada Pet. Corp. No. 4 Smith, Mason Sur. 322 (W.O.). Old T.D. 6,238 ft.; R.U.

**Hords Creek—Goliad County**

Brown & Wheeler No. 1-D Kaufman, Trevino Sur. Set csg. 4,454 ft.; to perf. 4,385 ft.

**Slick—Goliad County**

Dirks Bros. No. 1 Allen, O. Marshall Sur. Pettus sd. 4,239-54 ft.; drlg. deeper 4,260 ft.

**Darst Creek—Guadalupe County**

Geo. Bobb et al No. 1 Williams, DeWitt Sur. Drlg. sh. 55 ft.
La Jita Corp. No. 5 Denman, Arrington Sur. R.U.
Saxet Oil Co. No. 2 Lay, Davis Sur. Drlg. 2,577 ft.

**Manford—Guadalupe County**

J. K. Blackmor No. 1 Appling, J. Hodges Sur. S.D. 240 ft.

**Samfordyce—Hidalgo-Starr Counties**

Dean Bros. No. 1-C George, 20-ac. tr., Sh. 13, Porc. 41. No report.
Ralph E. Fair No. 3 Flores, 30-ac. tr., Tr. 250, Porc. 38. S.D. 3,202 ft.; prep. P.B.

**LaBlanca—Hidalgo County**

Atlantic Ref. Co. No. 1 Lewis, Blk. 214. Drlg. 3,455 ft.
Dee. Davenport No. 1 Swallow, Blk. 215. Drlg. 5,532 ft.
Fohs Oil Co. No. 1 Harding, Blk. 89. Loc.

**Randado—Jim Hogg County**

Magnolia Pet. Co. No. 43 M. S. Banks, Sur. 151. Cg. 2,162 ft.

**Armagosa—Jim Wells County**

Tom Graham No. 1 Earhart, John Suggs Sur. T. D. 4,000 ft.; set csg. 3,170 ft.; S.O.; perf. 3,099-3,111 ft.; swbd. S.W.; T.D. 4,000 ft.; S.D.

**Bentonville—Jim Wells County**

Camp. Prod. Co. No. 2-B Pope, N½, sec. 13, King Farm Lots. S.D. 500 ft.
Texon Drlg. Co. No. 2 Ralston, 990 ft. W line, 330 ft. W line, sec. 17. No report.

**West Premont—Jim Wells County**

Graham & Gilcrease No. 2-D Bennett, Lots 49 and 64, sec. 77. Oil sd. 2,248-53 ft.; set csg. 2,244 ft.; comp. 107 B.P.H., ¼-in. ck.
Graham & Gilcrease Oil Co. No. 2-B Laughlin, sec. 77. Comp.; no gauge; T.D. 3,317 ft.
Graham & Gilcrease No. 4 Laughlin, Lots 94 and 99, sec. 77. Sd. 3,357-71 ft.; cig. in pits.
Homer Presnall No. 1 Haufbauer, Lots 22 and 27, sec. 72. Sd. (cor.) 3,480-94 ft.
Trio Oil Co. No. 1 Laughlin, Lots 33 and 48, sec. 77. Sd. 2,241-46 ft.; set csg. 2,235 ft.

**North Pettus—Karnes County**

Magnolia Pet. Co. No. 15 Porter, B.&B. Sur. 25. Sd. 3,693-3,705 ft.; set csg.; comp. 70 B.P.D. on pump.

**Kingsville—Kleberg County**

Buchanan Drlg. Co. No. 11 Dennett, C SE¼, Lot 18, sec. 88. D.&A. 3,788 ft.
Clark & Stilzig No. 3 Kivlin, Blk. 8, sec. 39. R.U.
Clark & Stilzig No. 1 O'Henry, Lot 2, sec. 49. O.W.W.O.; T.D. 2,641 ft.; P.B.; perf. and reperf.; completing.

**Oakville—Live Oak County**

Ohio Fuel Oil Co. No. 2-A Rosebrock, L. Romero Sur. Set csg. 2,788 ft.; T.D. 2,794 ft.

**Calliham—McMullen County**

Wm. Howard No. 8 Claunch, Hely Sur. Sd. 1,053-63 ft.; fsg. for bailer.

**Ezzell—McMullen County**

Edwin M. Jones No. 6 Ezzell, NW¼ SE¼, Ragland Sur. 20. S.D.; 8⅝-in. csg. set 234 ft.
E. M. Jones No. 7 Ezzell, sec. 20. Sd. 1,501-08 ft.; comp. 240 B.P.D., ⅛-in. ck.; perf. 1,501-08 ft.

**Jacob—McMullen County**

Loma Oil Co. No. 8-B Jacob, Sur. 13. R.U.
National Pet. Co. No. 4-C Lark, Scrugham Sur., Blk. 129. Drlg. sh. 887 ft.

**Loma Alta—McMullen County**

Humble O. & R. Co. No. 2 Atkinson, Deen Sur. No. 13. R.U.
J. T. Lanier No. 1 Hagist, SE¼, N½, Sur. 481. S.D. 200 ft.

**North Jacob—McMullen County**

F. D. Salter No. 2 Griffith, Osborn Sur. Fsg. 940 ft.

**Agua Dulce—Nueces County**

Conroe Drlg. Co. No. 1 Hagan & Stewart, sec. 206, Bishop Subd. Set csg. 225 ft.; W.O.C.
United Prod. Co. No. 1 Harvey, 1,100 ft. W line, 1,050 ft. N line, tr., M. Garza Sur. Set 5½-in. csg. 7,457 ft.; perf. csg. 7,375-84 ft.; flwg. 112 B.P.D. fluid, reported 25 to 30% oil, remainder S.W.; T.D. 9,003 ft.; P.B. 7,388 ft.; W.O.C.
United Prod. Co. No. 3-A Rivers, sec. 9, Peters Subd. Drlg. 5,167 ft.

**Chapman Ranch—Nueces County**

Seaboard O. Corp. No. 6 Collins, sec. 38, Laureles Farm Tracts. Tstg. 5,043-68 ft.

**Clara Driscoll—Nueces County**

Magnolia Pet. Co. No. 4 Sevier, 80-ac. tr., R. Russell Sur. Comp. 132 B.P.D. on ⅛-in. ck.; sd. 3,812-16 ft.

**Flour Bluff—Nueces County**

Humble O. & R. Co. No. 1 Brett & Secrist, Lot 2, sec. 48. T.D. 6,662 ft.; rng. tbg.
Humble O. & R. Co. et al No. 1 Bracht & Webb, Lot 7, Blk. 47. Set csg. 6,661 ft.; W.O.C.
Humble O. & R. Co. et al No. 1 Collier, Lot 29, Blk. 48. Flg. in pits 6,670 ft.
Humble O. & R. Co. et al No. 1 Downie & Surber, Lot 17, Blk. 48. Set csg. 6,664 ft.; completing.
Humble O. & R. Co. et al No. 1 Duncan, Lot 6, sec. 41. T.D. 6,663 ft.; comp. 120 B.P.D., ⅛-in. ck.
Humble O. & R. Co. et al No. 2 Ritter, Blk. 55. Set csg. 6,654 ft.; W.O.C.
Humble O. & R. Co. No. 3 Robertson, Lot 11, Blk. 56. D.S.; perf. 6,669 ft.

**London—Nueces County**

Atlantic Ref. Co. No. 1 Stockton, SW¼, sec. 12. T.D. 6,400 ft.; D.&A.

**Saxet Heights—Nueces County**

Wm. Brady No. 1 Whelan, 56.9-ac. tr., Villareal Sur. Sd. 4,025-50 ft.; drlg. plugs.
Harrison Drlg. Co. No. 2 Whelan, Villareal Sur. Oil sd. 4,059-64 ft.; set csg. 4,068 ft.; S.D.
H. M. Reed No. 2 Quinn, 28-ac. tr., Villareal Sur. Perf. csg. 4,072-76 ft.; T.D. 4,120 ft.; S.D.
H. M. Reed No. 3 Quinn, 28-ac. tr., Villareal Sur. Sd. and sh. 4,058-96 ft.; set csg. 4,120 ft.; W.O.C.
Roosth & Genecov No. 1 Rose, Lot 9, Blk. 11, Villareal Gardens. T.D. 4,094 ft.; completing.
Ben F. Smith No. 1 Snowden, 13-ac. tr., Villareal Sur. R.U.

**Saxet—Nueces County**

C. Andrade No. 6 Frank, 28-ac. tr., Sur. 500. Sd. 6,885-6,901 ft.; rng. csg.
Baltic Drlg. Co. No. 6 Harmon, Sur. 416. Sd. 6,300 ft.
Bentex Drlg. Co. No. 4 Harmon, 50-ac. tr., Sur. 416. T.D. 6,369 ft.; D.&A.
R. B. Bryant No. 1 Cox & Cryder, 20-ac. tr., Gallagher Sur. 166. Drlg. 4,016 ft.
R. B. Bryant No. 2 Frank, Sh. "C," Sur. 416. (W.O.). Stdg. 5,831 ft.
R. B. Bryant No. 6 Harmon, Sur. 416. Sd. 6,922-52 ft.; set csg.; W.O.C.
Crown Central Pet. Corp. No. 6 Hunter, Sur. 591. R.U.
Crown Central Pet. Corp. No. 8-B Morgan, 80-ac. tr., Sur. 315. Sd. 4,455-60 ft.; set csg.; tstg.
Crown Central Pet. Corp. No. 4 Page, 75-ac. tr., Page Lds. Sur. Sd. 4,852-62 ft.; set csg.; comp. 160 B.P.D., ⅛-in. ck.

Donico Prod. Co. No. 7 Donnigan, 60-ac. tr., sec. 7, Rge. 6. T.D. 3,228 ft.; rmg.
Donico Prod. Co. No. 9 Donnigan, sec. 7, Range 6. Sd. 4,080-88 ft.; tstg.
Donico Prod. Co. No. 10 Donnigan, 80-ac. tr., sec. 7, Rge. 6. Sd. 4,550-55 ft.; comp. 254 B.P.D. on ¼-in. ck.; T.D. 4,555 ft.
Floboots Oil Co. No. 1 Bliss, 25-ac. tr., Stevens Tr. Set csg. 6,964 ft.; comp. 252 B.P.D. on ½-in. ck.; sd. 6,900-10 ft.
Floboots Oil Co. No. 4 Humphries, Stevens Sur. W.O.; old T.D. 5,840 ft.; set csg. 6,982 ft.; completing.
L. Glasscock No. 2-B Johns, 20-ac. tr., MacGregor Sur. 582. Sd. 4,855-65 ft.; set csg.; comp. 175 B.P.D., ¼-in. ck.
Tom Graham No. 5 Harmon, 34-ac. tr., Sur. 416. Set 16-in. csg. 150 ft.; W.O.C.
Hiawatha Oil Co. No. 7 Griffith, 10-ac. tr., Sur. 416. T.D. 7,230 ft.; set 5½-in. csg. 5,580 ft.; sd. 5,332-45 ft.; perf. 5,533½-43½ ft.; cig. on ½-in. ck.
Hiawatha Oil Co. No. 10 Hutchins-Stillwell, Blk. 34, Sheppard Farm Lots. Sd. 4,866-75 ft.; comp. est. 150 B.P.D. and 25 B.P.D. S.W., 5/32-in. ck.
Hiawatha Oil Co. No. 11 Hutchins Stillwell, Blk. 34, Sheppard Farm Lots. Set 16-in. csg. 181 ft.; W.O.C.
Hiawatha Oil Co. No. 12 Hutchins Stillwell. Blk. 34, Sheppard Farm Lots. R.U.
Hiawatha Oil Co. No. 5-A Smith, Blk. 35, Sheppard Farm Lots. T.D. 4,840 ft.; P.B. to sdtrk. 4,800 ft.
Houston Oil Co. No. 4-A Harrell, Blk. 28, Sheppard Farm Lots. Drlg. 4,790 ft.
Houston Oil Co. No. 23 Morgan, sec. 7 Rge. 5. Drlg. plug 4,425 ft.; comp. 184 B.P.D., ¼-in. ck.
Houston Oil Co. No. 27 Morgan, sec. 7, Range 6. Drlg. 1,411 ft.
Houston O. Co. No. 6 Walton, Villareal Sur. Cg. sh. 4,263 ft.
H. H. Howell No. 5 Hutchins, 80-ac. tr., Sur. 416. Sd. 6,898-6,911 ft.; set csg.; perf. 6,698 ft.; testing.
H. H. Howell No. 4 Morgan, sec. 415. Drlg. 4,613 ft.
Kepley Prod. Co. No. 5 Donnigan, 100-ac. tr., sec. 7, Range 6. Drlg. 2,017 ft.
Morgan & Chapman Minerals Corp. No. 7 Morgan, NE¼, Sur. 405. Sd. 6,690-6,708 ft.; tstd. oil; set csg.; perf. 6,700-03½ ft.; recmtg.
Phillips Pet. Co. No. 1 Frank, 27.5-ac. tr., Sur. 500. Set csg. 5,864 ft. Perf. 5,775-78 ft.; flg. in pits making dist.
Phillips Pet. Co. No. 3 Perkins-LaGasse, 40-ac. tr., Stevens Sur. A-406. Drlg. 6,133 ft.
Port O. & G. Co. No. 3 Cox & Cryder. Sd. 3,814-28 ft.; set csg. 3,851 ft.; stdg.
Potter & Snowden No. 1 Taggert, Blk. 5, Sur. 401. S.D. 6,004 ft.
Renwar & Maryland No. 1-A Rand Morgan, Sur. 415. O.W.W.O.; old T.D. 5,825 ft. Sd. 6,687-92 ft. Tested high grav. oil; drlg. ahead 6,827 ft.
Republic Nat. Gas Co. No. 3-A Morgan, sec. 405. Drlg. 1,780 ft.
Richardson Pet. Co. No. 2 Erwin, Sur. 500. Drlg. 6,717 ft.
Richardson Pet. Co. No. 6 Sedwick, 185.47-ac. tr., Sur. 311. Set csg. 4,806 ft.; sd. 4,808-15 ft.; comp. 162 B.P.D., ⅞-in. ck.
Richardson Pet. Co. No. 7 Sedwick, 124-ac. tr., Sur. 311. Drlg. 5,611 ft.
Richardson Pet. Co. No. 8 Sedwick, 184-ac. tr., Sur. 312. Spdg. in.
Richardson Pet. Co. No. 9 Sedwick, Dunn Sur. 312. Drlg. 586 ft.
Richardson Pet. Co. No. 11 Quiros, Sur. 311. Sd 5,820-35 ft.; set csg.; recmtg.
Shell Pet. Corp. No. 5 Flato, Blk. 3, Sheppard Farm Lots. Tstg. 4,547 ft.
Southern Minerals Corp. No. 4 Elder, 60-ac. tr., Villareal Gr. Drlg. 1,610 ft.
Southern Minerals Corp. No. 4 Harrell, Blk. 19, Sheppard Farm Lots. Set 10-in. csg. 1,115 ft.
Southern Minerals Corp. No. 6 Isensee, Sur. 404; (W.O.). R.U.; old T.D. 6,290 ft. washing to bttm.
Texon Drlg. Co. No. 7 Carter-Ocker-Till, 200-ac. tr., Sur. 316. Sd. 4,440-48 ft.; comp.
Texon Drlg. Co. No. 1 Ocker, Surs. 402 and 316. Prep. spud.
Texon Drlg. Co. No. 6 Ocker, 174.21-ac. tr., Surs. 402 and 316. Drlg. 3,021 ft.
Texon Drlg. Co. No. 9 Ocker, Sur. 402. Sd. 4,442-48 ft. Set 7-in. csg. 4,441 ft. comp.; no gauge.

**Sullivan—Nueces County**

Lockhart et al No. 1 O. Purl Lot 2 sec 7, Ross Peters Subd. No. 2. Fsg. 6,596 ft.

**Midway—San Patricio County**

Phillips Pet. Co. No. 1 Ivey, 990 ft. E line 344 ft. S line, sec. K. Oil sd. 5,335-46 ft.; set csg.; reperf. 5,340-42 ft.; comp. 120 B.P.D., 98% oil on ½-in. ck.

**Plymouth—San Patricio County**

Plymouth Oil Co. No. 76-C Welder, sec. 70. Set csg. 5,645 ft.; comp. 150 B.P.D., ½-in. ck.
Plymouth Oil Co. No. 77-C Welder, sec. 71. Set csg. 5,643 ft.; sd. 5,625-41 ft.; comp.; no gauge.

**Taft Field—San Patricio County**

Humble O. & R. Co. No. 24 Mayo, Ottman Sur. Comp. 17 B.P.H. on ⅝-in. ck.; T.D. 3,989 ft.
Humble O. & R. Co. No. 25 Mayo, Ottman Sur. R.U.

**White Point—San Patricio County**

Pan American Prod. Co. No. 1 White Point Dev. Co., 100-ac. tr., Wm. Bell Sur. T.D. 4,117 ft.; S.D. repairs.

**Barbacoas—Starr County**

K. E. Merren No. 1-A S.C.C.C., Blk. 34, Lambeth Subd., Porc. 89. Set csg. 5,417½ ft.; shut in; W.O. equip.; C.I.C.P. 2,560 lbs.; flowed 25 B.P.D. dist. on 5/32 in. ck.

**Los Olmos—Starr County**

R. M. Mitchell No. 1 Bass, Blk. 6, Sur. 8. Drlg. 286 ft.

**Ricaby—Starr County**

Carter-Stiernberg No. 1 Vela, Lot 1, Blk. 4, El Tanque Subd., Porc. 84. Drlg. 1,506 ft.
Carter & Stiernberg No. 2 Vela, Porc. 85. Drlg. 205 ft.

**El Tanque—Starr County**

Dodd, Trustee No. 4 Wood Est., Porc. 84. S.D. 750 ft.
Sioux Oil Co. No. 4 Ricaby, Porc. 83. D.& A. 1,818 ft.
Sun Oil Co. No. 1 Wardner Est., W2/7, Porc. 84. S.D. 1,762-75 ft. Set csg. 1,767 ft. T.D. 1,780 ft.; tstg.

**Bruni-Cole—Webb County**

Bishop Oil Co. No. 1 Bruni Est., Blk. 8, Sur. 8, Foltz Subd. Comp. 35 B.P.D.; T.D. 3,435½ ft.
Bridwell O. Co. No. 1 Benavides, Sur. 691. Drlg. 2,677 ft.
J. B. Cutbirth No. 1 Bruni, Blk. 5, Sur. 8. R.U.
Highland Oil Co. No. 3-B Bruni, Surs. 7 and 8. Drlg. 1,579 ft.
Magnolia Pet. Co. No. 44 Brennan-Benavides, Blk. 13, Hale Subd. Comp. gasser.; T.D. 3,437 ft.
L. H. Pitkin No. 1 Bruni, Blk. 4, Sh. 8. Testing 3,434 ft.

**Killam—Webb County**

C. H. Baily No. 2 Garcia, Sur. 768. Drlg. sh. 850 ft.
Humble O. & R. Co. No. 1 Laurel Bros., Sur. 333. T.D. 2,027 ft.; comp. 50 B.P.D.
Humble O. & R. Co. No. 2 Laurel, Sur. 333. Sd. 2,019-27 ft.; swbg.
R. Killam No. 2 Garcia, Sur. 1099. S.D.; R.U.
O. W. Killam No. 3 Garcia, Sur. 786. T.D. 2,048 ft.; comp. 75 B.P.D.; P.B. 2,012 ft.
O. W. Killam No. 7 Garcia, N½ Sur. 786. R.U.
Eugene Mays No. 1 Garcia, 120-ac. tr., Sur. 786. Loc.

**Lopez—Webb—Duval Counties**

Valley Osage Oil Co. No. 5 M. Billings, Sur. 109. R.U.

**O'Hern—Webb County**

Magnolia Pet. Co. No. 2 Benavides, Sur. 172, Garza Sur. Drlg. 2,856 ft.
Magnolia Pet. Co. No. 8 Benavides, Blk. 32, O'Hern Subd. Drlg. 3,197 ft.
J. J. O'Hern No. 1-D Benavides, Blk. 30, O'Hern Subd. D.&A. 2,914 ft.
J. J. O'Hern No. 6-C Benavides, Blk. 30, O'Hern Subd. Drlg. 1,482 ft.
Peggy-Sue Oil Co. No. 2 Benavides, Blk. 23. Drlg. 856 ft.
Starr Dev. Co. No. 1 Benavides, 330 ft. N and W lines, Sur. 173. M.I.M.
Sun Oil Co. No. 1-A Benavides, Blk. 10, Hale Subd. Drlg. 3,256 ft.

**LaSal Vieja—Willacy County**

Shell Pet. Corp. No. 1 Yturria, Sh. 64, Carricitos Gr. (W.O.): set csg. 7,630 ft.; T.D. 10,286 ft.; P.B. 7,556 ft. to D.S. test.

**Byersville—Williamson County**

Ben Pearce No. 1 Mattick, H. White Sur. Drlg. sh. 65 ft.

**Chapman-Abbott—Williamson County**

Joe E. Mills No. 1 Olive, S. Miller Sur. D. & A. 2,387 ft.

**Escobas—Zapata County**

E. Calloway No. 8 Garcia, Sh. 3, Fansler Part. Sd. 1,182-84 ft.; dry; D.&A.; T.D. 1,192 ft.
Nordan & Morris No. 25 Bustimente, Sh. 33, Fansler Part. Comp. 22 B.P.D.; T.D. 1,209 ft.
Nordan & Morris No. 26 Bustimente, Sh. 33, Fansler Part. Drlg. 1,187 ft.
Starr Dev. Co. No. 1 Garza, Blk. 34, Douglas Subd. R.U.
Texas Co. No. 101 Jennings, Cerrito Blanco Gr. Set csg. 1,247 ft.; W.O.C.

## E. C. TEXAS WILDCATS

**Anderson County**

Humble O. & R. Co. No. 1 Mrs. S. Hassell, J. Beard Sur., 2 mi. N of Jarvis. Loc.

**Bowie County**

Chew & Basset No. 1 Barkman. Drlg 2,776 ft.
Ferguson & Hill No. 1 Breckenridge. S.D. 2,765 ft.
Woodley & Bently No. 1 Lumpkin. Drlg 4,454 ft.

**Falls County**

H. H. Bell et al No. 1 A. Garrett, J. M. Sanches Sur. Top Edwards 1,469 ft.; T.D. 1,516 ft.; to P.B.
E. B. Collard et al No. 1 P. Neikamp, W. Hampton Sur., 3 mi. E of Lott. S.D. 280 ft.

**Freestone County**

C. E. Rossiter No. 1 J. P. Fulton in J. P. Fulton Sur., 2½ mi. E of Donie. S.D. 956 ft.
Stroude et al No. 1 P. Mullens, R. D. Sloan Sur., 6 mi. NE of Fairfield. T.D. 341 ft.

**Henderson County**

R. J. Paschal No. 1 H. M. Wilson, Thos. Caro Sur., 4½ mi. N of Malakoff. Loc.
Tide Water Assoc. et al No. 2-C McElreath & Suggett, W. P. Wyche Sur. Top Woodbine 4,450-70 ft.; Georgetown 5,070 ft.; to set csg.; T.D. 5,140 ft.

**Hill County**

A. N. Mabry No. 1 M. Holderman, C. Sullivant Sur., 1 mi. S of Mt. Calm. S.D. 680 ft.

**Hopkins County**

J. Carpenter Oil Co. No. 1 Gillis, between Brashear and Cumby, W. A. Smith Sur. Drlg. 3,943 ft.

**Houston County**

American Liberty Oil Co. No. 1 W. L. Moore, S. E. Parker Sur., 1½ mi. NW of Grapeland. Fsg. 6,200 ft.

**Hunt County**

Stanolind O. & G. Co. No. 1 J. P. Hawks R. Ragsdale Sur., near Campbell. Top Paluxy 4,383 ft.; top Glen Rose 4,815 ft.; top anhydrite 5,335 ft.; base massive ahydrite 5,560 ft.; Travis Peak 5,965 ft.; T.D. 6,570 ft.; pipe stuck.

**Limestone County**

Pure Oil Co. No. 16-T Kendrick, P. Verella Sur., Mexia field. Top Anhy. 5,000 ft.; drlg. 5,515 ft.

**Red River County**

Roy I. Carter Drlg. Co. No. 1 J. A. Tutt, C 40-ac. tr. in D. Hart Sur., 2 mi. S of Avery. S.D. 410 ft.

**Rusk County**

Barnett Pet. Corp. No. 1 S. C. Sanford W. A. Corder Sur., 10 mi. E of Mt. Enterprise. Georgetown 3,275 ft.; drlg. 4,323 ft.
General Crude and others No. 1 Bivins Est., R.U. R. Williams Sur., 6 mi., N of Latum. W.O.C. 950 ft.
J. Merrick et al No. 1 Tipps, T. Uzzell Sur., 6 mi. S of East Texas field. Top sd. 3,886 ft.; S.D. 3,890 ft.
Nivola O. Co. No. 1 Citizens Natl. Bank, M. D. Carmel Sur. 2½ mi. SE of Henderson. Loc.
J. W. Shipman et al No. 1 Citizens Bank, J. J. Y'Barbo Sur., 4 mi. NE of Henderson. S.D. 4,340 ft.

**Upshur County**

F. W. Maddox No. 1 S. T. Buie, J. M. Dunn Sur., 4 mi. E of Gilmer. Austin 3,629 ft.; top Woodbine 3,717 ft.; to retest 3,751 ft.

**Van Zandt County**

Humble O. & R. Co. No. 1 L. K. Riggs, W. Daniels Sur. Skidded 100 ft.; top Austin 2,805 ft.; top Georgetown 3,675 ft.; drlg. 5,278 ft.

## EAST TEXAS

***(Border Counties)***

**Bowie County**

Sutton & Hawkins No. 1 D. L. McDuffey, John Bell Sur. Drlg. 5,210 ft.
Ferguson & Hill No. 1 A. V. Breckenridge, Nancy Dycas Sur. T.D. 2,731 ft.; D.S.T. showed mud and show oil.
Woodley & Bentley No. 1 J. D. Lumpkin, J. McDermott Sur. Drlg. 4,122 ft.

**Cass County**

American Lib. Oil Co. No. 2 E. T. Tyson, Cass Sch. Ld. Sur. Drlg. 5,700 ft.
Bay Oil Corp. No. 1 W. R. Cobb, G. Crowder Sur. R.U.
Bay Oil Corp. No. 1 W. B. Parker, G. Crowder Sur. R.U.
G. H. Chamblee No. 1 Collett, J. S. Smith Sur., 20-ac. tr. Drlg. 4,538 ft.
Gulf Prod. Co. No. 1 W. T. Henry, H. Owens Sur., NW cor. Sur. T.D. 5,940 ft.; 7-in. cmt. 5,929 ft.; W.O.C.S.
Magnolia Pet. Co. No. 3 W. M. Hall, Wilson Robinson Sur. 16-in. cmt. 254 ft.
Magnolia Pet. Co. No. 7 W. M. Hall, J. N. Jackson Sur. Drlg. 4,700 ft.
Magnolia Pet. Co. No. 18 L. Haywood, P. Evans Sur. T.D. 6,031; tstg.
Magnolia Pet. Co. No. 20 L. Haywood, P. Evans Sur. 7-in. cmt. 6,035 ft.; T.D. 6,049 ft.; W.O.C.S.
Magnolia Pet. Co. No. 21, L. Haywood, P. Evans Sur. Comp.; flw. 520 B.P.D.; T.D. 6,026 ft.
R. W. Norton No. 5 Davis, H. Holbert Sur. 7-in. cmt. 5,972 ft.; T.D. 5,995 ft.; W.O.C.S.
R. W. Norton No. 1 L. E. Hardin, Dudley Gilleans Sur. Comp.; flw. 234 B.P.D.; T.D. 6,000 ft.
R. W. Norton No. 5 J. T. Moore, J. S. Smith Sur. Drlg. 5,533 ft.
R. W. Narton No. 1 W. & E. Starke, Dudley Gilliam Sur. 13-in. cmt. 252 ft.
Ohio Oil Co. No. 19 R. P. Willis, S.F.I.W. Sur. Drlg. 2,624 ft.
W. G. Ray Drlg. Co. No. 2 Parker, G. Crowder Sur. R.U.
Texas Co. No. 1 Chatten, Wm. R. Myers Sur. Comp.; flow 520 B.P.D.; T.D. 5,996 ft.
Texas Co. No. 3 N. A. Rambo, Cass Ctv Sch. Ld. Sur. Comp; flow 43 B.P.H.; T.D. 6,012 ft.
Texas Co. No. 4 N. A. Rambo, Cass Ctv Sch. Ld. Sur. 7-in. 6,047 ft.; T.D. 6,068 ft.; W.O.C.S.
United Gas No. 1 Threwer, J. S. Smith Sur. T.D. 6,046 ft.; flow and tested.
United Prod. No. 2 Allday, 87-ac. tr. Drlg. 5,360 ft.
United Prod. Co. No. 3 Allday, P. Evans Sur. Drlg. 617 ft.
United Prod No. 6 Baugus Unit, R. Trammel Sur. T.D. 5,920 ft.; dry; W.O.
United Prod. No. 2 Belote, H. Holbert Sur. 7-in. 5,996 ft.; T.D. 6,005 ft.; W.O.C.S.
United Prod. No. 2 J. Q. Clements, Wm. B. Hughes Sur. Comp. 10,000,000 ft. gas; T.D. 6,090 ft.
United Prod. No. 1 W. W. Herner, J. S. Smith Sur., on 14-ac. tr. Comp.; flow 16 B.P.H.; T.D. 5,998 ft.
United Prod. No. 1 M. R. Lennard, J. S. Smith Sur., on 17-ac. tr. Comp.; flow 16 B.P.H.; T.D. 6,000 ft.

**Harrison County**

Lever Oil Co. No. 2-B Vincent Davenport Sur. T.D. 2,392 ft.; W.O.S.R.

**Marion County—Rodessa**

Arkansas-La. Gas Co. No. 1 Allen Houston, A. D. S. Coy Sur. Drlg. 4,876 ft.
Arkansas-Louisiana No. 1 C. C. Braden T. Hanson Sur. Cg. 6,880 ft.
Arkansas-La. Gas Co. No. 1 J. P. Fant, L. P. Cadenhead Sur. 16-in. cmt. 208 ft.
Fohs Oil Co. No. 1 Mary Reynolds, A. D. S. Coy Sur. Drlg. 3,595 ft.
Hunter Co. No. 2 Fonda, A. D. S. Coy Sur. Drlg. 5,208 ft.
Mid-Continent Pet. Corp. No. 1 Sory, A. D. S. Coy Sur. Drlg. 3,860 ft.

**Panola County**

Glassell & Glassell No. 1 Pierce & Chesbro, Julia Soape Sur. Drlg. 5,380 ft.
Magnolia Pet. Co. No. 2 E. A. Hull, Thos. Applewhite Sur. Drlg. 6,250 ft.

**Shelby County**

Wm. Redditt No. 1 Pickering Lbr. Co., SE cor. Stephens English Sur. T.D. 4,109 ft.; flow gas and oil on test after acid; tstg.

## NORTH TEXAS WILDCATS

**Archer County**

O. P. Darsey No. 1 J. T. Longley, sec. 1839, T.E.&L. Sur. S.D.O. 880 ft.
J. T. Miller No. 1 J. M. Bloodworth, M. Cartwright Sur. A-60. S.D.O. 1,293 ft.
The Texas Co. No. 1 J. H. Turbeville K, S.A.&M.G. Sur. Spdg.

**Clay County**

Foster Minerals Corp. No. 1 V. H. Yarbrough M. Lassiter Sur. A-288. Drlg. 2,665 ft.
W. Gant No. 4 C. M. Worsham, sec. 38, G. P. Meade Sur. R.U.R.
Green Mt. Oil Co. No. 1 Staggs, sec. 34, A.C.S.L. Sur. S.D.O. 3,297 ft.

**Collin County**

F. Jones No. 1 Sherley, G. Morrison Sur. S.D.O. 3,003 ft.

**Cooke County**

L. A. McWhirter, tr., No. 1 W. J. Davidson, Geo. Dooley Sur. A-301. Spdg.
Seitz Comegys & Seitz No. 1 E. J. Dougherty, J. N. Harris Sur. A-1204. Spdg.
V. E. Powell No. 1 D. B. Allred, G. DeLos Santos Sur. A-894. Sand 3,537-46 ft.; test. S.W. D.D.
J. G. Richards et al No. 1 J. A. Yosten, T. Scott Sur. A-90. Fshg. one joint pipe.
Whitfield, Pearson & Grimes No. 1 C. F. Bundy, P. P. Cary Sur. A-1239. Testing, bailing 3 bbls. per hr.
Texas Co. No. 1 J. F. Marshall, A. Burns Sur. A-49. Drlg. 3,695 ft.

**Denton County**

California Ref. Co. No. 1 W. & S. Life Ins. Co., B.B.B.&C. Sur. A-783. S.S.O. 1,461-65 ft. 6⅝-in. 1,460 ft., W.O.C.
Oil Finance No. 1 J. S. Gambill. S.D.O. 2,380 ft.
A. A. Lander No. 1 Gibson, O. Wilcox Sur. A-1404. Testing sand; est. 5,000,000 ft. gas.
Manning & Moore No. 1 Dora Ratchford, J. Walters Sur. T.D. 2,102 ft.; P.B. to test S.S.O. 1,945-60 ft.
Regan & Davis No. 1 Williams, M.E.P.&P. Sur. A-927. Cem. surf. pipe and S.D.O.

**Foard County**

O. P. Burnham No. 1 Ward, sec. 21, H.& T.C. Sur., Blk. 8. Drlg. 1,500 ft.

**Grayson County**

Denver P. & R. Co. No. 1 McMenamy, J. Hertzog Sur. A-528. Drlg. 3,375 ft.
Mildred Oil Co. No. 1 F. R. DeCordova, H. Stewart Sur. A-1072. Spdg.
North Texas Oil Co. No. 1 A. M. Smith, R. M. Williamson Sur. A-1300. S.D.O. 370 ft.

**Jack County**

F. S. Freeland No. 1 R. E. Graves, S. Hazel Sur. A-258. R.U.C.T.
Hill & Hill No. 1 W. O. Hickman, T. M. League, A-348. Drlg. 300 ft.
H. B. Madden No. 1 J. L. Mask, sec. 2708, T.E.&L. Sur. Sdy. L. 1,829-35 ft.; tstd. dry; S.D.O.
O. J. Murray No. 1 W. J. Easterly, J. Helenstutter Sur. A-1269. S.D.O. 110 ft.
R. A. Westbrook No. 1 Worthington-Knox, B.B.B.&C. Sur. A-185. S.D.O. 1,560 ft.

**Knox County**

Denver P. & R. Co. No. 1 Waggoner, sec. 90, H.&T.C. Sur., Blk. E. Drlg. 3,200 ft. lime.

**Montague County**

Lesh & McCall No. 1 Dodson, T. R. Jackson Sur. A-394. S.S.O. 3,145-53 ft. Tested S.W.; prep. to D.D.
Montague Oil Co. et al No. 1 J. A. Brite, sec. 2882, T.E.&L. Sur. Drlg.
I. W. Sorrell et al No. 1 J. E. Walthall, S. H. Smith Sur. A-662. S.D. 2,000 ft.
Ventex Investments, Ltd., No. 1 S. E. Bell, sec. 11, M.E.P.&P. Sur. Repairing boilers; T.D. 3,220 ft.

**Wichita County**

Morgen & Anderson No. 1 C. A. Mertins,

sec. 2, G.C.&S.F. Sur. Pulling on 5-in. csg. stuck at 1,575 ft.
W. B. Omohundro No. 1 J. A. Kemp, Blk. 52, W.V.F.L. Sur. Loc.
D. G. Parker No. 1 fee, sec. 22, P.P.C.S.L. Sur. A-241. U.R. 6⅝-in. 1,300 ft.
Perkins & Culium No. 1 T. L. Burnett A. sec. 1, T.&N.O. Sur. A-316. Fshg. 1,622 ft.

**Wilbarger County**

J. B. Baker, Jr., No. 1 Waggoner A, sec. 7, H.&T.C. Sur., Blk. 4. Drk.
Barry & Hayes No. 1 McGill, sec. 3, Blk. 9, H.&T.C. Sur. Spdg.
F. A. Lain No. 1 J. Coffee, sec. 44, H.&T.C. Sur. D.S. stuck 6,610 ft.
W. W. McDonald No. 3 Waggoner A. sec. 26, H.&T.C. Sur. Testing lime 3,638-54 ft. with acid.
C. C. Wilson No. 1 W. T. Waggoner, Geo. Butler Sur. A-3. O.S. 1,099-1,110 ft.; P.O.P.

**Wise County**

Latex Oil Co. No. 1 C. R. Smith, J. Couch Sur. A-104. S.D.O. 2,165 ft.; derrick pulled in.

**Young County**

F. W. Bennett No. 1 R. V. Tidwell, J. L. Blackwood Sur. A-1378. Drlg. 3,260 ft.
H. J. Cox No. 1 W. T. Donnell, J. M. Smith Sur., sec. 1-7-1879. S.D.O. 1,810 ft.
Hickok et al No. 1 A. P. Martin, V. H. Twilliger Sur. A-1883. Drlg. 1,966 ft.
T. D. Humphrey No. 1 S. R. Ragland, T. B. Kuykendall. R.U.C.T.
Lupton & Long No. 1 W. I. Gilmore, J. Gilmore Sur. A-2135. Drlg. 400 ft.
Pitzer & West No. 1 Norton "B", sec. 615, T.E.&L. Sur. Drlg. 2,100 ft.
T. G. Shaw Oil Corp. No. 1 J. L. McLaren, sec. 6, B.B.B.&C. Sur. A-29. T.D. 3,000 ft.; P.B. to test S.S.O. 2,929-70 ft. S.D.O.
H. Zweifel No. 1 E. S. Graham, B.S.&F. Sur. A-44. Drlg. lime 3,480 ft.
H. Zweifel No. 1 R. D. Sewell, M. Case Sur. A-1402. Drlg. 3,750 ft.

## RANGER (CENTRAL TEXAS) DISTRICT

**Brown County**

Charter O. & G. Co. No. 1 T. B. Slick. Drlg. 1,230 ft.
Garland Moore et al No. 1 T. S. Williams, 1 mi. NE Grosvenor. Sec. 40, H.T.&B. Sur., Abst. 2037. Spdg. & S.D.
Donald P. Kenyon No. 1 Stone, Ellenberger test. Drlg. 1,410 ft.
West Texas O. & R. Co. No. 1 J. P. Newton, 3 mi. S Cross Cut, W. L. Swain Sur. No. 145. Drlg. 1,385 ft.

**Callahan County**

Hal Hughes No. 1 Poindexter, 330 ft. fr. N&E of sec. 350, Geo. Hancock. Sur. 2 mi. NE Oplin. Sounding.
J. C. Jackson et al No. 1 Thompson, 2 mi. S. Eula, sec. 30, B.B.B.&C. Sur. Drlg. 500 ft.
Owen Murray & Donald O'Neal No. 1 E. L. Estes. Drlg. 1,875 ft.
B. A. Wilkinson, Trustee, No. 1 F. L. Martin, sec. 69, T.&P. Sur., Blk. 14. Drlg. 1,430 ft.

**Coleman County**

Dixie O.&G. Co. No. 1 Reaves, 6 mi. NW Bangs, J. M. Rhine Sur. No. 629. S.D. 805 reprs.

**Comanche County**

N. D. Gallagher et al No. 1 Mrs. B. I. Terry, Desdemona pool, N. H. Kuykendall Sur. Skd. 10 ft. N. Drlg. 1,650 ft.

**Eastland County**

J. T. Anderson No. 1 Crist, 8 mi. N of Rising Star, sec. 36, Lavaca Co. Sch. Lds. L. 3,038-77 gt.; shot with 100 qts.; C.O.
Barnett Pet. Corp. No. 1 Downtain, 1½ mi SE of Eastland, sec. 2, E.T.R.R. Sur., Blk. 6. O.S. 1,440-50 ft.; est. 2 bbls. per hr.; cmtd. 6⅝-in. 1,440 ft.; W.O.C.
Barrett & Moon No. 1 Foote, 4 mi. NE Carbon, sec. 9, H.&T.C. Sur., Blk. 2. Spd. and S.D.
Monark O. & G. Co. No. 1 Downtain, sec. 14 H.&T.C. Sur. Blk. 4, 3 mi. N Eastland. Drlg. 450 ft.
L. A. Thompson No. 1 C. V. Fox, 4½ mi. S of Ranger, Lot 28, McLennan Sur., Lge. Drlg. 1,020 ft.

**Erath County**

Jess Hickey et al No. 1 W. M. Martin, 2 mi. SE Desdemona, D. J. Otho Millard Sur. A-533. Drlg. 738 ft.

**Haskell County**

Danciger O. & R., Inc., No. 1 Pardue, 8 mi. E Stamford, sec. 48, Thos. Toby Sur., Abst. 396. Drlg. 2,190 ft.
Forest Dev. Corp. No. 1 Pardue, 6 mi. NE Stamford, sec. 1, H.&T.C. Sur., Blk. 1. S.D. 2,210 ft.
E. W. Mariand & H. B. Drake No. 1 Corothers, 6 mi. S Haskell, sec. 67, D. E. Zaaz Sur. Loc. for 2,700 ft. cable tool test; material.

**Jones County**

Art Cox No. 1 West, 10 mi. E Noodle Creek pool. Lot 72, Godwin Subd., Dewitt Co. Sch. Lds. Drk.
Fain & McGaha Oil Corp. No. 1 Eula G Lucas, B.B.B.&C. Sur. Drlg. 1,950 ft.
Fain & McGaha Oil Corp. No. 1 J. H. Wheeler, 3 mi. NW Sandy Ridge pool, sec. 55, O.A.L. Sur.
G. M. Gillespie No. 1 W. H. McKeever, 4 mi. SE Anson, sec. 53, O.A.L. Sur 5 bbls. T.D. 2,573 ft.; will P.B. to 2,175 ft.
Humble O. & R. Co. No. 1 Teaff Est., E S and W of NE¼ sec. 33, T.&P. Sur., Blk. 18. Loc. for 5,600-ft. Ordovician test. Drlg. 1,250 ft.
T. D. Humphrey No. 1 Radford, 3 mi. S Hawley, sec. 38, T.&P. Sur., Blk. 16. Drlg. 2,050 ft.
Iron Mountain Oil Co. No. 1 Olander, 3 mi. E Avoca, 220 ft. fr. N & E of SW¼ sec. Iso, B. & M. C. Sur. Drlg. 2,780 ft.
Owens-Snebold Oil Corp. No. 1 J. L. Herndon, 2 mi. SW Anson, S.P.R.R. Sur., Blk. 2. Drlg. 1,750 ft.
Frank Oyster et al, 1 mile S Nugent, 2,100 ft. from N and 200 ft. from W of sec. 11, T.&P. Sur., Blk. 4. Drlg. 454 ft.
W. H. Peckham No. 1 Davis et al, 3 mi. SW Lueders. Subd. 8, F. M. Smith Sur. No. 3. Rng. 8¼-in. csg. 1,380 ft.
Riddle et al No. 1 J. D. Freeman, 8 mi. SW Anson, sec. 6, T.&P. Sur., Blk. 17. S.D. 2,300 ft.
Southern Oil Co. No. 1 B. W. Thane NE cor. County. Andrew Jones Sur. 114. Drlg.
L. B. Tannehill et al No. 1 Willis, 2 mi. NW Sandy Ridge pool, sec. 2, J. C. Patton Sur. Rigging up.
Texas Inland Oil Co. et al No. 1 Rowell, 5 mi. E Anson, sec. 37, O.A.L. Sur. Drlg. 580 ft.

**Palo Pinto County**

Paul Garrett No. 1 Mabry heirs, NE cor. county, sec. 2,572, T.E.&L. Sur. S.D. 470 ft.
Henry Hobbs et al No. 1 Bessie Holt, 4 mi. S. Graford, sec. 1,783, T.E.&L. Sur. S.D. 200 ft.
Earnest Lloyd et al No. 1 Bailey, 3 mi. NE Graford, sec. 2,003, T.E.&L. Sur. S.D. 1,802 ft.

**Shackelford County**

Ben Banner No. 1 Dawson & Conway, 4 mi. NE Morris-Buie pool, C NW¼ of SE¼ sec. 176, E.T.R.R. Sur. Sand 1,349-55 ft.; prep. to test.
Humble O. & R. Co. No. 4 Geo. DeLafosse, E C line county sec. 1550, T.E.&L. Sur. Drlg. 2,330 ft.
M. P. Moore et al No. 1 Geo. Gray, W side Bluff Creek pool, sec. 208, E.T.R.R. Sur. Drlg. 1,525 ft.
Ungren & Frazier No. 1 Dyer A, CSL county, 200 ft. from S and E of NW¼ sec. 86, T.&P. Sur., Blk. 12. Drlg. 1,100 ft.

**Stephens County**

Barnett Pet. Corp. No. 1 J. O. Corbett, 4 mi. SE Ivan, sec. 3, S.P.R.R. Sur., Blk. 3. Fsg. Bit. 800 ft.
Clark & Cowden et al No. 2 Echols Heirs, 6 mi. SE Ivan, sec. 10, S.P.R.R. Sur., Blk. 3. Rng. 8¼-in. 2,510 ft.
Cox & Caprito No. 1 Donnell, 1 mi. SW Eliasville, sec. 1,208, T.E.&L. Sur. Rigging up standard tools.
O. J. Perren No. 1 J. K. P. Hughes, NE cor. County of NW¼ sec. 6 A.B.&M. Sur., Abst. 2,683. Drlg. 2,600 ft.
Philtop O. & G. Co. No. 1 T. M. Corbett, 8 mi. NE Caddo, Edward Romershausen Sur., Abst. 149. S.D. repairs 3,505 ft.
W. J. Rhodes No. 1 Black Bros., 8 mi. NE Breckenridge, sec. 1,135, T.E.&L. Sur. Rigging up.

**Stonewall County**

General Crude Oil Co. No. 1 W. J. Bryan, 7 mi. N Hamlin, Subd. 10, Wm. Vardeman Sur. No. 347. Drlg. 2,815 ft.

**Tarrant County**

E. E. Hoffpauir et al No. 2 W. H. Davis, 2 mi. S Arlington, H. Blackwell Sur. S.D.O. 2,140 ft.

**Throckmorton County**

Long & Bedner No. 1 Everett, 9 mi. S Throckmorton, 1,836 ft. fr. S & 400 ft. fr. W of sec. 1,615, T.E.&L. Sur. C.O. to 3,300 ft.; W.O. csg.

## WEST TEXAS WILDCATS

**Andrews County**

Amerada Pet. Corp. No. 1 L. Lippman, sec. 6, Blk. A-29, P.S.L. Sur. Top Yates 2,910 ft.; drlg. 3,466 ft.
W. G. Blanchard et al No. 1 Cox, C SW sec. 4, Blk. A-30, P.S.L. Sur. Drlg. 1,715 ft.
M. S. Forgeron et al No. 1 Lockhart & Brown, C NE¼ sec. 20, Blk. A-41, P.S.L. Sur. R.U.
Sinclair Prairie Oil Co. No. 1 Emma Cowden, sec. 11, Blk. 44, Twp. 2n, T.&P. Sur. S.D. 3,962 ft.
Hargrove et al No. 1 Riordan, NW¼, sec. 10, Blk. A-44, P.S.L. Sur. Top Salt 2,080 ft.; drlg. 2,147 ft.
Humble O. & R. Co. No. 2 Walker, sec. 6, Blk. A-43, P.S.L. Sur. Drlg. 1,222 ft.
Landreth Prod. Co. No. 1 [illegible] sec. 11, Blk. A-42, P.S.L. Sur. Fsg. 4,416 ft.

**Bailey County**

Etz & Robinson No. 1 Enochs, Tract 66, League 182, Floyd Co. School Lands Sur. R.U. mach.
E. L. Wilson et al No. 1 Yellow House Land Co., Labour 4, Abner Taylor Lge. 700. Elev. 3,687 ft.; T.D. 4,497 ft.

**Brewster County**

F. C. Dodson No. 1 Texas American Synd., sec. 66, Blk. 10, G.H.&S.A. Sur. Drlg. 4,548 ft.
Storey No. 1 Wilson, sec. 3, Blk. 212, T.& St.L. Sur. S.D. 2,250 ft.

**Cochran County**

Englewright & Fogelson No. 1 Houston. Drlg. 4,354 ft.
Pete Wiggins et al No. 1 C. Slaughter Dean C Lab. 26, League 92, Lipscomb C. School Ld. R.U. mach.

**Coke County**

H. E. Ogden et al No. 1 Rawlins, sec. 390, Blk. 1-A, H.&T.C. Sur. S.D. 515 ft.
Plymouth Oil Co. No. 1 Mrs. Mary Hanna, sec. 252, Blk. LA, H.&T.C. Sur., 1⅛ mi. SW of Blackwell. Drlg. 3,560 ft.

**Crane County**

Gulf Oil Corp. No. 2 McKnight, sec. 9, Blk. B-21. Drlg. 5,404 ft.; P.B. 3,510 ft.; W.O.C.

**Crockett County**

R. H. Henderson No. 1 C. B. Haun et al. Machine.
Superior Oil Co. of Calif. No. 1 J. S. Todd, C SE¼ sec. 55, Blk. UV, G.C.&S.F. Sur. Drlg. 6,500 ft.

**Dawson County**

E. L. Wilson No. 1 Scanlon, Sec. 83, Blk. M, E.L.R.R. Sur. S.D. 150 ft. R.U.R.

**Edwards County**

Dan Auld et al No. 1 Rigsby, sec. 16, Blk. OK. G.C.&S.F. Sur. 15 mi. NE of Rock Springs. Sat. L. 3,920 ft.; S.W. 3,943-52 ft.; S.D.
A. P. Carter No. 1 F. D. Sweeten, S&E sec. 48, Blk. 2, B&B Sur., 1½ mi. E of Rock Springs. M.I.M.

**Ector County**

Fuhrman Pet. Corp. No. 1 E. Cowden, sec. 41, Blk. 43, Twp. 2s, T.&P. Sur. M.I.M.
Shasta Oil Co. No. 1 K. Sands, sec. 32, Blk. 44, T.&P. Sur. Loc.

**Fisher County**

Martin & Brubaker No. 1 Brown, W. E. Richardson Sur., sec. 4, Blk. R. T.P. 3,192 ft.; S.D. 3,194 ft.; pumped and flowed 4 bbls. per hr.; now S.D. for repairs.
Southern Oil Co. No. 1 Robinson, sec. 172, Blk. 2, H.&T.C. Sur., 2½ mi. NE of Raton. T.D. 3,505 ft.; shut in.
Tide Water Associated Oil Co. No. 1 Joe Robinson, W½ NE¼ sec. 172, Blk. 2, H.&T.C. Sur. Drlg. 626 ft.

**Gaines County**

Amerada Pet. Corp. No. 1 A. Faskin, sec. 160, Blk. G, W.T.R.R. Sur. T.D. 4,994 ft.; R.U.S.T.
Amerada Pet. Corp. No. 1 Matthews, sec. 417, Blk. G, C.C.S.D.&R.G.N.G. Sur. Drlg. 1,025 ft.
A. G. Carter No. 1 A. L. Wasson et al, sec. 48, Blk. AX, P.S.L. Sur. T.D. 4,959 ft.; 88 B.P.H. through ¾-in. choke.
Carter et al No. 1-B Wasson, sec. 47, Blk. AX, P.S.L. Sur. R.U.R. 165 ft.
A. G. Carter et al No. 1 Moore-Langdon, sec. 44, Blk. AX, P.S.L. Sur. S.D. R.U.R. 2,200 ft.
Continental O. Co. No. 1 Jones, sec. 22, Blk. A-7, P.S.L. Sur. Drlg. 4,679 ft.
Continental Oil Co. No. 1 Moore, sec. 46, Blk. AX, P.S.L. Sur. W.O.C. 245 ft.
T. N. Sloan et al No. 1 Barber, NE cor. sec. 19, Blk. A-28, P.S.L. Sur. Drlg. 3,616 ft.
Wentz Oil Co. No. 1 Dalmont, sec. 5, Blk. A-22, P.S.L. Sur. Drlg. 4,774 ft.

**Garza County**

S. Caprito No. 1 Post Estate, sec. 230, Blk. 5, K. Avcock Sur. T.D. 3,608 ft.; P.B. to 3,150 ft.; swabbing.

**Glasscock County**

Moore Bros. No. 1 King, sec. 46, Blk. 36, Twp. 1s, T.&P. Sur. Drlg. 683 ft.

**Hockley County**

R. F. Duggan et al No. 1 Yellow House Land Co., cen. Labour 11, League 718, State Capitol Lds. Drlg. 2,529 ft.
Stanolind O. & G. Co. No. 1 A. A. Slaughter, C SW¼ Labour 76, League 37, Zavalla Co. Sch. Lds. Sur. S.D. 400 ft.; set csg.

**Howard County**

Iron Mt. Oil Co. No. 1 D. H. Snyder, sec. 28, Blk. 30, Twp. 1s, T.&P. Sur. Drlg. 782 ft.
W. F. McDermott et al No. 1 Lucas, 330 ft. from S and W, sec. 18, Blk. 29, Twp. 1n, T.&P. Sur., 5 mi. N of Dodge pool. Loc.

**Hudspeth County**

Haymon Krupp Oil & Ld. Co. No. 1 Thaxton, SE¼ sec. 34, Blk. 74, Twp. 6. Fsg. 3,076 ft.

**Jeff Davis County**

H. D. Wilcox et al No. 1 Jones-Coffield. Drlg. 1,660 ft.

**Loving County**

Barnett Pet. Co. No. 1 Johnson, sec. 2, Blk. 57, Twp. 1, T.&P. Sur. S.D.
Barnett Pet. Corp. No. 2 W. D. Johnson, sec. 12, Blk. 56, Twp. 1, T.&P. Sur. Drk.
Finley et al No. 1 W. D. Johnson, sec. 24, Blk. 56, Twp. 1, T.&P. Sur. Top sand 3,614 ft.; S.D. 3,668 ft.; shot: C.O.
Stanolind O. & G. Co. No. 1 M. Kyle, sec. 20, Blk. 55, Twp. 1, T.&P. Sur. P.B. to 3,946 ft.; T.D. 3,984 ft.; to pump.
Woodley Pet. Co. No. 1 Kloh, sec. 21, Blk 55, Twp. 1, T.&P. Sur. R.U.R.

**Mitchell County**

Grisham-Hunter Corp. No. 1 Morrison, sec. 34-29-1n, T.&P. Sur. Drlg. 2,025 ft.
Mitchell O. & G. Co. No. 1 Z. Morrison, sec. 36, Blk. 29, Twp. 1n, T.&P. Sur. Drlg. 1,989 ft.

**Pecos County**

Cannon & Cannon No. 1 University, sec. 2, Blk. 20. Drlg. 1,000 ft.
Dobbs No. 1 University, sec. 30, Blk. 18. Drlg. 1,700 ft.
Humble O. & R. Co. No. 1 E. M. Gray, sec. 94, Blk 11, G.H.&S.A. Sur.; 5,000-ft. test. Top Del. L. 5,010 ft.; top Delaware sand 5,050-69 ft.
K. Kimberlin No. 1 Humble-Young, sec. 49, Blk. 10, H.&G.N. Sur. S.D. 895 ft.
W. Y. Penn No. 1 Upton, sec. 85, Blk. 8, H.&G.N. Sur. Drlg. 2,176 ft.
G. J. Smith No. 1 W. E. Smith, sec. 37, Blk. 1, I.&G.N. Sur. Drlg. 1,012 ft.
Tex-Mex Pet. Co. No. 1 Williams, sec. 79½, Blk. 8, H.&G.N. Sur. T.D. 1,315 ft.; U.R. csg.
S. Thompson No. 1 Elsinore Cattle Co., sec. 54, Blk. D, G.C.&S.F. Sur. Drlg. 5,008 ft.
Trans-Pecos Oil Co. No. 1 Gallagher, sec. 9-51-10, T.&P. Sur. S.D. 1,475 ft.
Trans-Pecos Oil Co. No. 1 Popham. S.D. 535 ft.
Young No. 1 Perry, sec. 3, Blk. Z, T.C. R.R. Sur. Drlg. 1,475 ft.

**Presidio County**

L. C. Brite No. 4 fee, C NW¼ sec. 113, Blk. 12, G.H.&S.A. Sur. Drlg. 3,436 ft.
A. H. Main No. 1 Greenlee, sec. 40, Blk. 347, 13 mi. NE of Marfa. No report.
Sadler Bros. et al No. 1 Bagley. S.D. 3,315 ft.

**Reagan County**

K. E. Sherman No. 1 W. E. Friend, SW cor. sec. 3, Wm. Allen Sur. Drlg. 881 ft.
Moore Bros. No. 1 University, sec. 8, Blk. 7. Spudded and S.D.

**Reeves County**

Barnett Pet. Corp. No. 1 Ely, sec. 38, Blk. 71, P.S.L. Sur., 12 mi. NW of Toyah. S.D. 395 ft.
General Crude Oil Co. No. 1 T. P. Land Trust, C NE¼ sec. 15, Blk. 56, Twp. 2, T.&P. Sur. Derrick.

**Runnels County**

Hall Oil Co. No. 1 Boldo, sec. 51, Thompson Casey Sur. R.U.R.
K Z Oil Co. No. 1 B. Fletcher, E. C. Good Sur. S.D. 750 ft.
Price & Kramer No. 1 Giesecke, Blk. 227, Hughes Sur. S.D. 2,503 ft.
Stevens & Glover No. 1 Fowler, sec. 150, E.T.R.R. Sur., 2 mi. NE of Ballinger. S.D. 480 ft.

**Schleicher County**

J. M. Cooper No. 2 B. Page, sec. 40, Blk. L, G.H.&S.A. Sur. Drlg. 1,976 ft.
Tex.Tor Oil Corp. No. 1 Judkins & Spencer, C of SW¼ sec. 33, Blk. A, A.&B. Sur. Drlg. 567 ft.

**Scurry County**

Bristow & Cantrell No. 1 Tomlinson, sec. 122, Blk. 97, H.&T.C. Sur. S.D. 3,167 ft.
E. L. Goos No. 1 Henderson, sec. 148, Blk. 97, H.&T.C. Sur. S.D. 3,377 ft.
C. W. Guthrie et al No. 1 F. W. Hardee, sec. 99, Blk. 97, H.&T.C. Sur. S.D.

**Terry County**

Anthony & Rice No. 1 Brownfield, C NW¼ sec. 28, Blk. A-1, E.L.R.R. Sur. Drk.
Crump & Corrigan No. 1 Lewright, 660 ft. NE, sec. 1, Blk. C-37, P.S.L. Sur T.D. 5,133 ft.; P.B. to 4,996 ft.; recemented csg.
R. L. Foree No. 1 A. E. Pool, sec. 54, Blk. D-11, D.&S.E. Sur. Drlg. 1,978 ft.

**Upton County**

W. M. Holland No. 1 Donaldson, NE¼ sec. 16, Blk. B, C.C.S.D.&R.G.N.G. Sur., NE cor. of county. Loc.

**Ward County**

F. H. Murphy et al No. 1 Monroe, sec. 210 Blk. 34, H.&T.C. Sur. T.D. 1,013 ft.; C.O.
Magnolia Pet. Co. No. 1-55 Sealey, sec. 55, Blk. F, G.M.M.B.&A. Sur. T.D. 3,049 ft.; P.B. to 2,756 ft.
L. F. White et al No. 1 Rector-Monroe, E cor. sec. 3, Blk. 1, W.&N.W. Sur. Top Del. L. 4,635 ft.; top Del. sd. 4,670 ft.; S.O. 4,690 ft.; T.D. 4,700 ft.; P.B. 4,698 ft.; C.O. to shoot.

**Yoakum County**

Bahan et al No. 1 Shook Est., sec. 420 Blk. D, John H. Gibson Sur. Top lime 4,570 ft.; drlg. 5,312 ft.
Magnolia Pet. Co. No. 1 Mrs. M. E. Taylor sec. 201, Blk. D, John H. Gibson Sur. Elev. 3,607 ft.; drlg. 4,307 ft.
Moore Bros. No. 1 Cleveland, sec. 706, Blk. D, J. H. Gibson Sur. Loc.

## Canadian Fields

*(Continued from Page 88)*

leum & Refining Co. No. 1, LSD 12, section 11-8-22w4, is in the pale beds below 400 feet. Gas encountered at 220 feet is being used for fuel.

In the Steveville district, Anaconda Oil Co. No. 1, LSD 15, section 9-22-12w4, is below 40 feet.

### East Central Alberta

On the Ribstone-Blackfoot structure, East Central Alberta, Dina Oil & Refining Co. No. 3, LSD 14, section 9-45-1w4, bottoming at 1,875 feet has cleaned out and run 3-inch tubing and is preparing for a pumping test. The oil is of 17 degrees specific gravity, and rose 1,307 feet in the 6-inch casing, bringing with it 80 feet of sand which had to be cleaned out.

# Oil Man's Calendar

### July

12-13—Santa Fe, N. M., Interstate Oil Compact Commission meeting.

### August

10-15—Mount Pleasant, Mich., Third Michigan Oil and Gas Exposition.

### September

6-10—Rochester, N. Y., American Chemical Society.

7-8—Louisville, Ky., Kentucky Petroleum Marketers Association, Annual Fall Conference.

13-16—San Francisco, Calif., North American Gasoline Tax Conference.

15-17—Atlantic City, National Petroleum Association, annual meeting, Hotel Traymore.

16-19—Taft, Calif., Pacific Oil Show and Black Gold Festival.

**27—Cleveland, Ohio, American Gas Association, nineteenth annual convention.**

29-30—Cleveland, Ohio, Ohio Petroleum Marketers Association, Fall Conference, Hotel Carter.

### September—October

27-Oct. 1—Rochester, National Association of Petroleum Retailers, fifth national convention.

30-Oct. 1.—Tulsa, S.A.E. Fuels and Lubricants Regional Meeting.

### October

7-9—Los Angeles, Calif., S.A.E. National Aircraft Production Meeting, Ambassador Hotel.

**11-15—Kansas City, Mo.—Twenty-sixth National Safety Congress and Exposition.**

**11-16—Houston, Tex., Oil-World Exposition.**

12-14—Chicago, Ill., National Oil Marketers Association Convention, Stevens Hotel.

14-16—Pittsburgh, Pa., mid-year meeting, American Association of Petroleum Geologists, William Penn Hotel.

14-16—Houston, Tex., Independent Petroleum Association of America, annual meeting.

18-22—Atlantic City, N. J., American Welding Society, Eighteenth Annual Meeting and Welding Exposition.

21-22—Traverse City, Mich., Michigan Petroleum Association.

**26—New York, Oil Trades Association of New York.**

28—New York, S.A.E. Annual Dinner, Commodore Hotel.

**29-30—Dallas, Tex., Mid-Continent Oil and Gas Association of Texas, annual meeting.**

### October—November

27-Nov. 3—New York, National Automobile Show, Grand Central Palace.

### November

**9-12—Chicago, American Petroleum Institute, eighteenth annual meeting, Stevens Hotel.**

8-12—Chicago, American Petroleum Institute, Eighteenth Annual Meeting, Stevens Hotel.

16—New York, Oil Trades Association of New York.

### December

6—Memphis, Tenn., National Asphalt Congress.

**6-11—New York, Exposition of Chemical Industries, Grand Central Palace.**

8-10—Flint, Mich., S.A.E. National Production Meeting.

### 1938

### March

16-18—New Orleans, twenty-third annual meeting, American Association of Petroleum Geologists, Roosevelt Hotel.

### April

17-21—Dallas. Tex.. American Chemical Society.

## Michigan Fields

*(Continued from Page 87)*

Denver Township, drilling at 1,500 feet; Jackson & Schmidt No. 4 Hughes, a north offset, drilling at 1,200 feet.

### Midland County

Pure Oil Co.'s venture in Jasper Township, Midland County, No. 5-D Rayner, in the center of N half SE NE section 11, was completed this week at a depth of 3,444 feet in the Dundee. After acid the well produced 63 bbls. in a 24-hour test.

### Drilling Permits

There was a sharp decline in the issue of drilling permits the past week by the state conservation department, largely, perhaps, because most of the operators are "full up" with drilling jobs and are not taking on very many more just now.

Only a dozen permits were issued and only two of these in the Buckeye Township field of Gladwin County.

Five of the 12 permits are for wildcat locations—a Pure Oil Co. test in section 31, Greenwood Township, Clare County; Wayne Oil & Gas Co.'s test in section 34 of Wayne Township, Cass County, down in the southwestern part of the state; Harold J. Hand's wildcat on the Smart lease in section 29 of Bentley Township, Gladwin County; D. E. Hughes' test on the Cox lease in section 12 of Sage Township, Gladwin County, and Lee Brown's exploratory venture in section 26 of Salem Township, Washtenaw County, a few miles from Ann Arbor.

All the other wells for which permits were issued are either in proved territory or in areas considered to have normal possibilities for extension of the borders of existing pools.

## Central West Fields

*(Continued from Page 86)*

into the Berea sand without a show of oil or gas and may be abandoned. In section 7, Monroe Township, George Jewell & Co. is rigged up for a test on the John McKinney property.

Chaseville Oil & Gas Co. No. 3 Uranus Corwin, section 7, Wayne Township, Noble County, completed in Berea sand at 1,415-31 feet with show of gas. The well was shot with 30 quarts and bridged and shot failed to increase the 134,000-foot flow of gas. In section 22, Elk Township, Metcalf & Co. No. 10 C. Masters was drilled through the Keener sand at 1,190-1,221 feet, without a show of oil or gas and has been abandoned.

In Monroe County, section 23, Perry Township, Blue Ridge Oil & Gas Co. No. 8 Rex Kindall was drilled through Injun sand at 1,530-1,645 feet, topped the Shell at 2,010 feet, and failed to find the Berea, and has been abandoned. In section 24, Washington Township, Whitten Creek Oil & Gas Co. No. 7 Arthur Hupp was completed in Injun sand at 1,456-95 feet, where it was making 431,000 feet of gas and 3 bbls. of oil naturally. The gas blew down and the well was shot with 20 quarts, which failed to increase the 75,000 feet of gas, but increased the oil production to 4 bbls. a day. In section 5, Benton Township, Jims Run Oil & Gas Co. staked a location for the second test on the J. H. Petty property.

In Meigs County, section 33, Salisbury Township, Smith Oil Co. No. 1 E. Bailey, which made 320,000 feet of gas in the Maxburg sand at 768-94 feet and had previously made 100,000 feet of gas in the Salt sand, was drilled to the Maxon sand at 861-89 feet where it made 688,800 feet of gas for a total production of 1,168,000 feet of gas.

In Washington County, section 11, Marietta Township, Hupp & Yerian No. 8 Washington County Infirmary, has an estimated production of 1 bbl. a day after a shot. In Newport Township, section 28, Harry Binegar No. 2 Ella Mellea was drilled through the Lime sand at 1,150-60 feet without a show of oil or gas and has been abandoned. In section 35, same township, Frank Kerr is spudding No. 21 on the Ella West lease. In section 27, Liberty Township, Best Run Oil & Gas Co. No. 2 Anthony Schwartz has been completed as a 140,000-foot gas well. The operators fished for the tools for four weeks without success and the well was shut in with the tools in the hole. In the same section the same company is moving a machine on location for the second test on the J. Best lease. In section 19, Otto Helsman & Co. gauged 134,000 feet of gas at 970-1,100 feet in the test on the Marion Epler property and may be drilled deeper. In the same county, section 21, Arelius Township, Greenlees & Dow have rigged up No. 12 Jasper Dow. In Location 1098, Wealey Township, Bachelor & Son are spudding No. 14 Ed Sheets. In section 30, same township, W. Watterson abandoned No. 14 E. Evans as a dry hole. The same operator is moving in machine for No. 15 on the same farm. In Location 1064, Palmer Township, Burt & Co. No. 22 J. Pugh was drilled through the first Cow Run sand at 437-56 feet without a show of oil or gas and has been abandoned.

## Louisiana-Arkansas Fields

*(Continued from Page 84)*

duty diesel rig for the drilling of their 6,000-foot wildcat, No. 1 Perthshire, section 2-24n-7w.

### Amite County

J. P. Wemple, Trustee, No. 1 Southern Forest Land Co., section 29-4n-2e, has been abandoned as dry at a total depth of 5,224 feet.

### Madison County

South of the Jackson gas field, Sun Oil Co. and others are preparing for the drilling of a proposed 8,000-foot test on a magnetometer high. Drilling operations are to begin about July 1.

## East Texas Fields

*(Continued from Page 60)*

bbls. in five hours on pump. Roy A. Reynolds No. 6 Elder, 3,508-77 feet, 20 bbls. in two hours. Shell Petroleum Corp. No. 69 Watson, 3,536-87 feet, 35 bbls. in 20 minutes.

### Rusk County

Barnsdall Oil Co. No. 8 Gill, 3,644-45 feet, 10 bbls. in 15 minutes. Cameron and Tucker No. 1 Gill, 3,616-17 feet, 20 bbls. in 30 minutes. Empire Oil & Refining Co. No. 14 Christian, 3,749-73 feet, 24 bbls. in 15 minutes. Gulf Oil Corp. No. 9 Brightwell, 3,598-3,627 feet, 60 bbls. per hour. M. Rueben No. 10 Wills, 3,629-30 feet, 40 bbls. per hour. Sun Oil Co. No. 26 Beall, 3,588½ feet, 69 bbls. per hour. Tide Water Associated No. 12 Beall, 3,667-70 feet, 4 bbls. in five minutes. Hugh Wilder No. 5 Brox, 3,635-3,700 feet, 55 bbls. per hour. Blackwell Oil & Gas Co. No. 10 Moore, 3,626-27 feet, 30 bbls. in 30 minutes. British American Oil Co. No. 8 Mayfield, 3,616-21 feet, 20 bbls. in 30 minutes. Champlin & Bass No. 7 Mason, 3,619-39 feet, 65 bbls. per hour. Fair and Thompson No. 6-A Wiley, 3,615-39 feet, 30 bbls. in two hours on pump. C. T. McMahon No. 9 Lee, 3,651-53 feet, 18 bbls. in two hours on pump. Sonbar Oil Co. No. 14 Finney, 3,646-3,710 feet, 60 bbls. per hour. Stanolind Oil & Gas Co. No. 15 Milstead, 3,651-3,735 feet, 30 bbls. per hour. Tide Water Associated No. 7 Whittington, 3,607-89 feet, 20 bbls. per day on pump. G. H. Vaughn No. 9 Reagan, 3,697-3,711 feet, 36 bbls. in 30 minutes. Clint Wood Drilling Co. No. 8 Irwin, 3,795-96 feet, 40 bbls. per hour.

### Upshur County

Barnett Petroleum Corp. No. 4 Phillips, 3,740-41 feet, 20 bbls. per hour on pump; No. 7 Phillips, 3,698-99 feet, 20 bbls. per hour. P. H. Pewitt No. 4-A Sobey, 3,726-27 feet, 40 bbls. per hour. Rogers and others No. 6 Evers, 3,877-88 feet, 10 bbls. per hour on pump. F. R. Swain and others No. 1 Kanaugh, 3,593-96 feet, 30 bbls. in 30 minutes.

## Eastern Fields

*(Continued from Page 56)*

feet. The United Carbon Co. has reached 4,975 feet in No. 2 H. C. Smith.

In Poca district, United Fuel Gas Co. has reached 5,072 feet on the A. J. Bruen and others lease. Guy B. Ray is drilling on the Elmer Thaxton and others lease and it is showing gas in the top of the Oriskany sand. The South Penn Oil Co. is drilling at 4,400 feet on the Newhouse farm just east of Sissonville.

In Malden district, the South Penn Oil Co. is drilling at 1,676 feet No. 4 Kate Scott. Godfrey L. Cabot, Inc., is down 4,575 feet in No. 5 Nellie B. Tompkins and 1,596 feet in No. 6. The United Fuel Gas Co. is down 3,835 feet and 1,215 feet in the Georges Creek Land & Mining Co. Nos. 4,741 and 4,742 respectively.

### Outside Deep Tests

In Wirt County, Carnegie Natural Gas Co. cemented casing on the W. C. Patterson farm, Burning Springs anticline, Burning Springs district, and resumed drilling through Corniferous lime.

In Jackson County, the United Carbon Co. is drilling at 1,625 feet and at 1,700 feet in the two tests on the Elizabeth W. Perkins farm in Washington district. In Pocatalico district, Putnam County, the West Virginia Gas Corp. is drilling No. 5 C. E. Albertson farm at 4,515 feet.

## Gulf Coast Fields

*(Continued from Page 78)*

sure. It was recompleted through perforations at 8,312-16 feet, and was previously completed at 8,318-21 feet and 8,324-29 feet, but due to salt water intrusion was recompleted. The company is drilling below 4,800 feet on No. 1 Henry Hebert and has made location for No. 1 Placide D. Hebert northwest of the producer in section 18-12s-8w.

# MARKET RECORD, ACTIVE OIL STOCKS

Compiled by Carl H. Pforzheimer & Co., 25 Broad Street, New York City, Member New York Stock Exchange and New York Curb Exchange

## New York Stock Exchange

| 1937 High | 1937 Low | Week ending June 26 Sales | High | Low | Close | Stocks— | Total shares outstanding | Par value | Latest dividend | Payable or last paid | Dividends paid in 1936 | 1936 High | 1936 Low | 1935 High | 1935 Low |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 114⅞ | 85½ | 500 | 87 | 85½ | 85½ | Amerada Corp. | 788,675 | N.P. | 50cQ | 7-31-37 | $2.00 | 125½ | 75 | 80 | 48½ |
| 37 | 27⅜ | 3,700 | 28¼ | 27¾ | 28 | Atlantic Refining | 2,664,000 | $25 | 25cQ | 6-15-37 | 1.25 | 35⅛ | 26⅝ | 28 | 20½ |
| 43⅜ | 28⅝ | 2,100 | 30⅛ | 28⅝ | 29 | Barber Co. | 387,149 | $10 | 25c. | 6-1-37 | .50 | 38½ | 21 | 22½ | 11¾ |
| 35¼ | 24¼ | 5,700 | 25 | 24¼ | 24¾ | Barnsdall Oil Co. | 2,247,974 | $5 | 25cQ | 8-2-37 | .80 | 28¼ | 14⅛ | 14¾ | 5⅞ |
| 20⅞ | 10 | 16.600 | 11⅝ | 10¾ | 11⅛ | Columbia Gas & Elec. | 11,610,036 | N.P. | 20c | 11-16-36 | .40 | 23⅜ | 14 | 15¾ | 3⅜ |
| 17⅞ | 14½ | 25,900 | 15⅝ | 15 | 15⅛ | Consolidated Oil Corp. | 13,919,417 | N.P. | 20cQ | 8-14-37 | .80 | 17¼ | 11½ | 12¼ | 6½ |
| 47⅜ | 39¾ | 8,700 | 43⅞ | 42½ | 43½ | Continental Oil of Delaware | 4,682,615 | $5 | 50cQ† | 6-30-37 | 1.50 | 44⅞ | 28⅛ | 35 | 15⅛ |
| 17⅝ | 12½ | 9,400 | 15¼ | 14⅛ | 14⅝ | Houston Oil (new) | 1,098,618 | $25 | .... | 10-17-30 | .... | 13⅞ | 6⅜ | 7 | 1½ |
| 35⅝ | 25⅛ | 2,900 | 27¾ | 26½ | 27¼ | Mid-Continent Petroleum | 1,855,912 | $10 | 50cSA | 6-15-37 | 1.15 | 30⅞ | 17¼ | 20½ | 9½ |
| 34 | 23⅞ | 500 | 25¾ | 25½ | 25¾ | Mission Corporation | 1,399,345 | N.P. | .... | ..... | .45 | 29⅞ | 16¾ | 17¾ | 10⅝ |
| 36¼ | 31¾ | 14,300 | 36¼ | 31¾ | 35½ | National Supply of Delaware | 382,591 | $25 | .... | 5-15-31 | .... | 75½ | 19⅞ | 20⅞ | 9 |
| 22⅞ | 17⅛ | 11,800 | 18⅞ | 17⅞ | 18⅛ | Ohio Oil Co. | 6,563,377 | N.P. | 50cSA | 6-15-37 | .60 | 18 | 12⅛ | 14¼ | 9¼ |
| 29¾ | 20¾ | 200 | 21¾ | 21¼ | 21¾ | Pacific Western Oil | 1,000,000 | N.P. | 65c | 12-18-36 | .65 | 23½ | 11¾ | 14 | 6¾ |
| 4½ | 2⅜ | 400 | 2½ | 2⅜ | 2⅜ | Panhandle P. & R. | 198,770 | N.P. | .... | ..... | .... | 4¼ | 1⅜ | 1⅞ | ½ |
| 59¼ | 49½ | 12,500 | 54¾ | 53⅛ | 53¾ | Phillips Petroleum | 4,449,052 | N.P. | 75cQ† | 6-1-37 | 2.50 | 52⅜ | 38⅛ | 40 | 13¾ |
| 29⅞ | 24¼ | 2,800 | 26½ | 25⅜ | 26 | Plymouth Oil Co. | 1,050,000 | $5 | 35cQ† | 3-31-37 | .90 | 27⅜ | 11⅞ | 13 | 6½ |
| 24⅝ | 16⅝ | 74,600 | 17¾ | 17 | 17⅝ | Pure Oil Co. | 3,281,120 | N.P. | .... | 9-1-30 | .... | 24⅞ | 16 | 17 | 5⅞ |
| 54⅛ | 36⅝ | 2,000 | 40¾ | 39¼ | 39¼ | Seaboard Oil of Delaware | 1,244,283 | N.P. | 25cQ | 6-15-37 | 1.00 | 44 | 30½ | 36⅞ | 20¾ |
| 34¾ | 28⅝ | 7,900 | 28½ | 26¼ | 27⅞ | Shell Union Oil | 13,070,625 | N.P. | 50c | 7-15-37 | .25 | 28¼ | 14¾ | 16½ | 5½ |
| 105⅜ | 102 | 800 | 104¾ | 104 | 104⅝ | Shell Union Oil 5½% pfd. | 343,500 | $100 | 26⅛c | 12-15-36 | 28.87½ | 127½ | 102 | 111 | 63⅛ |
| 4¼ | 3½ | 700 | 3⅝ | 3½ | 3⅝ | Simms Petroleum | 461,698 | $10 | 50c liq. | 1-9-37 | 2.25 liq. | 6¾ | 3½ | 18¾ | 4¾ |
| 60⅝ | 42 | 1,800 | 56⅜ | 54⅜ | 56⅜ | Skelly Oil | 1,006,348 | $15 | 50c | 7-1-37 | .... | 47⅜ | 19½ | 20½ | 6½ |
| 20¼ | 16¼ | 66,400 | 19⅞ | 19 | 19½ | Socony-Vacuum | 31,151,071 | $15 | 25cSA | 3-15-37 | .70 | 17½ | 12½ | 15¾ | 10⅝ |
| 50 | 39⅝ | 9,400 | 41½ | 40¼ | 40¼ | Standard Oil of California | 13,014,754 | N.P. | 45cQ† | 6-15-37 | 1.20 | 47⅝ | 35 | 41⅛ | 27¾ |
| 50 | 40½ | 10,400 | 43 | 42¼ | 42⅞ | Standard Oil (Indiana) | 15,196,241 | $25 | 40cQ† | 6-15-37 | 2.40 | 48½ | 32¾ | 33⅜ | 23 |
| 33⅜ | 30⅝ | No sales | .. | .. | .. | Standard Oil of Kansas | 134,841 | $10 | $1 | 12-26-36 | 1.00 | 31 | 25 | 32 | 20 |
| 76 | 63⅛ | 12,900 | 66¾ | 65 | 65½ | Standard Oil of New Jersey | 25,856,081 | $25 | $1.25SA† | 6-15-37 | 2.00 | 70⅜ | 51⅛ | 52⅜ | 35¾ |
| 77½ | 65 | 400 | 67 | 66¼ | 67 | Sun Oil | 2,156,825 | N.P. | 25cQ | 6-15-37 | $1 & 6% Sk. | 91 | 70 | 77 | 60½ |
| 65⅛ | 50⅜ | 21,800 | 59 | 56¾ | 58½ | Texas Corp. | 10,896,858 | $25 | 50cQ | 7-1-37 | 1.50 | 55¼ | 28⅞ | 30¼ | 16½ |
| 9⅝ | 6⅛ | 3,000 | 6⅝ | 6⅜ | 6⅜ | Texas Gulf Producing Co. | 888,124 | N.P. | 5c | 12-15-36 | .05 | 8⅞ | 4⅜ | 4⅜ | 2½ |
| 16⅝ | 11¾ | 1,900 | 14⅜ | 13¾ | 14 | Texas Pacific Coal & Oil | 888,237 | $10 | 10c | 6-1-37 | .25 | 15¼ | 7½ | 9¼ | 3¼ |
| 21⅝ | 15⅜ | 6,900 | 17¼ | 16⅛ | 16¾ | Tide Water Associated | 6,288,512 | N.P. | 20cQ | 6-1-37 | .70 | 21¾ | 14⅜ | 15⅞ | 7⅝ |
| 28¼ | 23 | 4,000 | 23⅝ | 23¼ | 23⅜ | Union Oil of California | 4,386,070 | $25 | 30cQ | 5-10-37 | 1.00 | 28½ | 20¾ | 24 | 14⅜ |
| 31½ | 24¾ | 700 | 27 | 26⅜ | 26½ | Union Tank Car Co. | 1,200,000 | N.P. | 40cQ | 6-1-37 | 1.20 | 31⅝ | 22⅝ | 26½ | 20⅞ |
| 6¼ | 4¼ | 600 | 4⅞ | 4¾ | 4⅞ | Wilcox Oil & Gas | 424,839 | $5 | .... | 5-10-28 | .... | 5¼ | 2¾ | 3⅛ | 1 |

*Ex-dividend. †Includes extras.

## New York Curb Exchange

| 1937 High | 1937 Low | Week ending June 26 Sales | High | Low | Close | Stocks— | Total shares outstanding | Par value | Latest dividend | Payable or last paid | Dividends paid in 1936 | 1936 High | 1936 Low | 1935 High | 1935 Low |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21⅜ | 16 | 400 | 17 | 16¼ | 16¾ | Bridgeport Machine Co. | 260,000 | N.P. | $1 | 12-21-36 | $1.00 | 21 | 13¼ | 14⅛ | 3¾ |
| 51½ | 45¾ | 150 | 46½ | 45¾ | 45¾ | Buckeye Pipe Line Co. | 200,000 | $50 | $1Q | 6-15-37 | 3.25 | 50 | 39¾ | 42[illegible] | |
| 2¾ | 1⅝ | 2,400 | 1¾ | 1⅝ | 1⅝ | Carib Syndicate | 799,020 | 25c | .... | ..... | .... | 4⅞ | 1⅞ | [illegible]⅛ | 1⅝ |
| 123 | 110¼ | No sales | .. | .. | .. | Chesebrough Mfg. Co. | 120,000 | $25 | $1.50Q† | 6-28-37 | 7.00 | 124¾ | 105 | 157 | 115 |
| 5⅜ | 2⅝ | 15,400 | 2⅞ | 2¾ | 2¾ | Cities Service | 37,804,394 | N.P. | | 6-1-32 | .... | 7⅜ | 3 | 3¼ | ⅝ |
| 4⅝ | 1¼ | 2,900 | 1⅜ | 1⅝ | 1⅜ | Cosden Oil | 399,687 | $1 | | ..... | .... | 4½ | 1½ | 1½ | ¼ |
| 38 | 28½ | 18,000 | 37¾ | 35¼ | 36½ | Creole Petroleum | 6,974,356 | $5 | 50cSA† | 6-10-37 | .50 | 39 | 19⅞ | 23¾ | 10 |
| 18⅝ | 11¾ | 800 | 12⅜ | 12⅛ | 12⅛ | Darby Petroleum | 351,390 | $5 | 25cSA | 7-15-37 | .50 | 18⅛ | 9 | 8⅞ | 4 |
| 8¼ | 5¼ | 600 | 6⅝ | 6½ | 6½ | Derby Oil & Refining | 263,162 | N.P. | .... | ..... | .... | 6¾ | 1⅞ | 2 | ⅝ |
| 47½ | 36½ | No sales | .. | .. | .. | Eureka Pipe Line | 50,000 | $50 | $1Q | 5-1-37 | 4.00 | 47½ | 38½ | 38 | 33¼ |
| 63½ | 50 | 3,600 | 53¾ | 50½ | 52¼ | Gulf Oil Corp. | 9,076,202 | $25 | 25cQ | 7-1-37 | 1.50, 100% Stk. | 59 | 36 | 74¾ | 50¼ |
| 87 | 72 | 1,500 | 75⅞ | 73½ | 75¼ | Humble Oil & Refining | 8,923,935 | N.P. | 37½cQ | 7-1-37 | 1.50 | 80 | 57 | 64 | 44 |
| 24¼ | 20 | 5,000 | 20⅝ | 20 | 20¼ | Imperial Oil of Canada | 26,919,871 | N.P. | 62½cSA†‡ | 6-1-37 | 1.25 | 24½ | 19¾ | 22½ | 15⅝ |
| 15 | 7¾ | No sales | .. | .. | .. | Indiana Pipe Line | 300,000 | $10 | 30cSA | 5-15-37 | .80 | 9¾ | 5½ | 6⅛ | 3⅝ |
| 39½ | 33½ | 2,200 | 34⅝ | 34¼ | 34½ | International Petroleum | 14,247,088 | N.P. | $1.25†‡ | 6-1-37 | 2.50 | 30⅝ | 32⅝ | 39¾ | 28 |
| 15¼ | 11⅜ | 8,700 | 12⅛ | 11⅞ | 12 | Louisiana Land & Exp. | 3.000,000 | N.P. | 10cQ | 3-15-37 | .50 | 13⅜ | 9⅞ | 11⅜ | 4⅜ |
| 32½ | 16⅛ | 17,700 | 32⅛ | 30¼ | 31⅛ | Lion Oil Refining | 270,000 | N.P. | 50cQ† | 7-20-37 | .75 | 17¾ | 7⅜ | 8⅛ | 3½ |
| 14¼ | 9⅞ | 800 | 10⅝ | 10¼ | 10⅝ | Lone Star Gas | 5,382,723 | N.P. | 20c | 4-20-37 | .60 | 14¼ | 9⅞ | 10⅞ | 4½ |
| 14⅝ | 9½ | 600 | 10⅜ | 10 | 10 | Midwest Oil Co. | 998,444 | $10 | 50c | 6-15-37 | .... | .. | .. | .. | .. |
| 7⅞ | 5¾ | 400 | 6 | 6 | 6 | Mountain Producers | 1,682,182 | $10 | 30cSA | 6-15-37 | .60 | 8⅜ | 5 | 5¾ | 4⅛ |
| 19½ | 14½ | 1,200 | 15⅝ | 15 | 15⅛ | National Fuel Gas | 3,810,183 | N.P. | 25cQ | 7-15-37 | 1.00 | 23 | 17⅜ | 20 | 11¾ |
| 12½ | 10 | 400 | 10⅜ | 10¼ | 10¼ | National Transit | 509,000 | $12.50 | 45cSA | 6-15-37 | .75 | 15¾ | 9¼ | 10⅝ | 6¾ |
| 6⅛ | 4¾ | 700 | 6⅛ | 5¾ | 6⅛ | New Bradford Oil | 1,445,202 | $5 | 15cSA | 4-15-37 | .10 | 4⅝ | 2⅞ | 3¼ | 2 |
| 5 | 2⅝ | No sales | .. | .. | .. | New Mexico and Arizona | 1,000,000 | $1 | 1c | 12-1-36 | .01 | 6⅝ | 1⅝ | 2½ | 1 |
| 5⅜ | 4½ | 100 | 4½ | 4½ | 4½ | New York Transit | 100,000 | $5 | 15cSA | 10-15-36 | .35 | 6¼ | 4¼ | 4⅞ | 3 |
| 12¾ | 7½ | 300 | 10½ | 10½ | 10½ | Northern Pipe Line | 120,000 | $10 | 40c | 6-1-37 | .40 | 9¾ | 4⅞ | 8 | 5¼ |
| 9⅝ | 5½ | 64,800 | 8⅞ | 7½ | 7¾ | Pantepec Oil | 1,608,700 | N.P. | | | .... | 10⅛ | 3¼ | 4⅜ | 1⅛ |
| 13¾ | 5 | 2,100 | 6⅞ | 6¼ | 6¼ | Root Petroleum Co. | 336.045 | $1 | 25c | 11-2-36 | .50 | 19¼ | 4½ | 5 | 1½ |
| 6½ | 4 | 500 | 6½ | 5½ | 5½ | Ryan Consolidated | 296,931 | N.P. | | | .... | 4¾ | 1⅞ | 2½ | ⅝ |
| 48 | 42 | 300 | 43¼ | 43 | 43 | South Penn Oil | 1,000,000 | $25 | 75cQ† | 6-30-37 | 2.60 | 44 | 32½ | 34½ | 21⅝ |
| 7¼ | 5 | 600 | 6½ | 5⅝ | 5⅝ | Southern Pipe Line | 100,000 | $10 | 20cSA | 3-1-37 | .25 | 7⅞ | 3¼ | 5 | 3⅞ |
| 42 | 30 | No sales | .. | .. | .. | South West Penna. Pipe Lines | 35.000 | $50 | 50cQ | 4-1-37 | 13.00 | 60 | 44 | 56 | 44¼ |
| 20¾ | 19 | 2,400 | 19½ | 19⅛ | 19⅛ | Standard Oil of Kentucky | 2.604,790 | $10 | 40cQ† | 6-15-37 | 1.35 | 23⅜ | 17⅛ | 24 | 18 |
| 13¾ | 9⅞ | 300 | 10⅛ | 9⅞ | 10⅛ | Standard Oil of Nebraska | 188.403 | $25 | 25c | 3-29-37 | .25 | 14⅝ | 11 | 12 | 7⅝ |
| 45 | 33 | 1,000 | 34⅜ | 33⅜ | 34¼ | Standard Oil of Ohio | 753,740 | $25 | 25cQ | 3-15-37 | 2.00 | 40 | 21¾ | 23⅝ | 11½ |
| 4⅞ | 3¾ | 3,300 | 4 | 3⅞ | 3⅞ | Sunray Oil | 1.910,119 | $1 | 5c | 4-26-37 | .10 | 5 | 2⅝ | 2⅞ | ⅞ |
| 7⅝ | 5¼ | 300 | 5½ | 5½ | 5½ | Texon Oil & Land | 336,028 | $2 | 15cQ | 6-30-37 | .60 | 9¾ | 5⅜ | 6⅞ | 5 |

*Ex-dividend. †Includes extras. ‡Payable in Canadian funds.

Note—In comparing highs and lows for the several years in the two tables, it will be necessary to take into consideration cases where there have been stock split-ups

# PERSONAL

M. L. BENEDUM, president of the Benedum-Trees Oil Company, Pittsburgh, Pa., is reported to be the financial backer of JAMES MATTERN, aviator, who has announced plans for a nonstop flight from Oakland, Calif., to Moscow. Mr. Mattern said his acquisition of a $90,000 plane for use in the air project had been made possible by Mr. Benedum, who is deeply interested in development of aerial travel. In 1933 Mr. Mattern flew from New York to Norway in what was intended to be a world flight, but he cracked up in Siberia, where he was rescued by soviet airmen. He said his forthcoming flight would demonstrate American aircraft and be a friendly gesture to the aviators who aided him four years ago.

J. N. BISH, production superintendent for the Ohio Oil Company in the Haynesville, La., field, will retire July 1 after 50 years service with the company. After gaining his early experience in the Pennsylvania fields, Mr. Bish joined Ohio's production department, and a series of promotions carried him to his present position. Tributes were paid to Mr. Bish by his associates in a recent company meeting.

H. L. MONTGOMERY, Bartlesville, Okla., has announced his resignation as president and member of the board of directors of the American Pipe Line Company, a Cities Service Gas Company subsidiary. Mr. Montgomery has been identified with utility interests since 1905, when he started work for the old Denver Gas & Electric Company. He has been active in the American Natural Gas Association and the Oklahoma Utility Association. His successor has not been named.

H. N. BLAKESLEE of New York, director of the department of accident prevention for the American Petroleum Institute, was in Dallas, Tex., the past week conferring with safety directors of oil companies and others in that city.

H. S. McCLINTOCK has resigned as chief scout and assistant in the land department of the Phillips Petroleum Company, in Bartlesville, Okla., to become head of the land department of the Sunray Oil Company, Tulsa. He is spending a vacation in California and will take up his new post on his return. C. M. NYE, now in the Sunray's land department, will be Mr. McClintock's assistant.

DR. G. DALLAS HANNA, paleontologist of Tide Water Associated Oil Company (Associated division), is heading a party of California petroleum geologists on a trip to Alaska. Other members of the party which left San Francisco, Calif., included CLAUDE E. LEACH, geologist for the same company, formerly stationed in Santa Paula, and ROY TALLANT, of the Standard Oil Company of California. ROBERT ATWELL, of the Union Oil Company, was forced to return owing to illness. The party, prepared for a six months' trip, will engage in reconnaissance work on the Alaskan Peninsula.

G. B. CORLESS, general superintendent of the Gulf Coast division, Humble Oil & Refining Company, is spending a vacation in Michigan.

R. C. KERR, geologist for the Standard Oil Company of California in Los Angeles, will leave this month for Arabia to engage in geological work.

JOHN V. STUCK, drilling foreman of the Standard Oil Company of California, has left to visit Oil City, Pa., his former home, which he has not seen for 30 years.

ROGER W. RICHARDSON, formerly a member of the Standard Oil Company of Louisiana's technical staff in Baton Rouge, has joined the Esso laboratories of the Standard Oil Development Company, Elizabeth, N. J., to head work on motor oils. He assumed his new duties on July 1.

W. A. PHELPS, who has been a clerk for the Sinclair Prairie Oil Company in Eastland, Tex., and doing scouting also, has been promoted to full-time scout and will cover the West Central and North Central Texas district, maintaining headquarters in Eastland.

C. C. HILDEBRAND, veteran oil scout and land man for the Phillips Petroleum Company in Amarillo, Tex., has been made assistant to D. C. HEMSELL, head of the land department for the company, and transferred to the head offices at Bartlesville, Okla. Mr. Hildebrand has been in charge of the land department in Amarillo for the past four years. TOM CRAIG, named to succeed him, has been district geologist and head of the economics department in Amarillo.

## Do You Remember?

From The Oil and Gas Journal Files

### 25 YEARS AGO

*George Hubley, 18, son of Grant Hubley, secretary of the Oil Well Supply Co., is killed in a wreck on the Ligonier Valley Railroad near Walpin, Pa.*

*Col. E. O. Emerson, 78, prominent oil region banker, capitalist and oil producer, and a resident of Titusville since 1865, dies at his summer home in York, Me. Colonel Emerson joined the rush to Pit Hole at the close of the Civil War.*

*Slick & Jones have the first big producing well in the Cushing field in Oklahoma. It started at more than 1,000 barrels per day. The field was opened in March.*

### 20 YEARS AGO

*Mr. and Mrs. L. F. Phillips of Gravity, Iowa, will celebrate their fiftieth wedding anniversary at their home on July 3. Their eight children, five boys and three girls, will be with them. The boys include Frank, Lee, Waite, Ed and Fred, all Oklahoma oil men.*

*Col. Oliver Payne, 79, Standard Oil director, and steel, tobacco and railroad baron, dies in New York. He leaves $7,000,000 to charities and public institutions.*

*Ohio Cities Gas Company purchases control of the Pure Oil Company. It is expected the merged company will be known as the Pure Oil Company.*

### 10 YEARS AGO

*The biggest completions of the week are a 11,000-barrel well in the shallow Yates pool, Pecos County, Texas, and a 13,000-barrel well in the Little River district in Oklahoma.*

*Prof. C. F. Mabery, for 35 years at the head of the Standard Oil Company's laboratories, dies in Portland, Me. He was a scientist of world-wide fame.*

H. H. KEATING, manager for the Standard Oil Co. (Indiana) in La Crosse, Wis., was honor guest at a dinner in the Stoddard Hotel of that city recently, celebrating 30 years of service with the company. More than 400 employes were present.

EARL STRATTON, formerly land man and scout in the Panhandle district for the Texas Company, has been promoted and transferred to Fort Worth, Tex., where he will be assistant to the chief of the land department. JUDGE GRANT is now scouting the Panhandle for the company.

J. C. FINLEY has resigned as assistant chief geologist of the Phillips Petroleum Company to become chief geologist of the Middle States Petroleum Corporation and Turman Oil Company and subsidiaries. Mr. Finley is a graduate of Kansas University. His resignation was effective July 1.

C. F. WATSON, formerly the Houston, Tex., representative of the James B. Berry & Sons Company, has opened offices in the Sterling Building of that city under the firm name of C. F. Watson & Company. Mr. Watson has handled petroleum products in the Texas and Louisiana Gulf Coast for 15 years.

FORD SCHROCK, of the Atlantic Pipe Line Company, Midland, Tex., has received the highest award of the National Safety Council, the president's medal. He and C. E. LOCKE both received certificates in honor of meritorious service performed when they saved the lives of two men who suffered asphyxiation in the Ward County field. They used the prone-pressure method of resuscitation.

# PARAGRAPHS

DR. R. DANA RUSSELL, assistant professor in the School of Geology of Louisiana State University, is conducting a study of the geology of Bienville and Jackson parishes, Louisiana, this summer. He will be in charge of a field party making a survey.

A. M. BLOW, vice president, and A. R. DENISON, chief geologist, of the Amerada Petroleum Corporation, with headquarters in Tulsa, and J. F. HOSTERMAN, geologist, and H. E. MARSH, land man with headquarters in Fort Worth, Tex., visited the company's district offices in Houston, Tex., last week.

F. A. CALVERT of Saginaw, Mich., president of the Oil and Gas Association of Michigan, has been appointed a member of the tax policy and advisory committee of the Independent Petroleum Association of America. The committee working on national legislation for stabilization of the oil industry. At a meeting last week in Midland about 50 Michigan oil operators pledged support to the national association's legislative program. President Roosevelt was criticized for his statement branding oil operators as tax evaders, because of the 27½ per cent depletion allowance now permitted the industry.

E. McCUNE, head of the land department for the Sun Oil Company in Dallas, Tex., is spending a vacation in the Pacific Northwest, accompanied by MRS. McCUNE.

DAVID B. McCALMONT, Franklin, Pa., oil producer, and MISS ANNE ISABEL ROBINSON, daughter of MR. and MRS. JOHN C. ROBINSON of Sandycreek, Pa., were married June 20.

EDGAR STUTZ, lease foreman in the Bristow, Okla., district for the Phillips Petroleum Company, was awarded a gold pin recently in recognition of 20 years of service in the organization. He is one of 11 men who joined the company when it was formed June 13, 1917.

J. K. MacKINNON is general manager of the Talco Asphalt & Refining Company, which began operations in Mount Pleasant, Tex., last week. Other officials are: C. O. GARBRECHT, superintendent; JOHN DOM, chief chemist; JAMES REED, chief engineer; E. E. JACKSON, sales manager, and JOE DRANGUET, office manager.

C. W. MANVILLE, for the last four years manager of the Shell Petroleum Corporation's Indiana division, has been advanced to manager of the central division. J. L. WADLOW, formerly manager of the Florida division, succeeds him as head of the Indiana division. E. R. RENFREW, formerly manager of the service station department, becomes Florida division manager. R. T. SEIDEL, sales manager for the Ohio division, is now head of the service station department. F. W. HARPER, formerly division lubricating oil manager, takes Mr. Seidel's place.

D. D. PENDLETON, for many years associated with the Wheeler Condenser & Engineering Company and Power Specialty Company, now merged into the Foster Wheeler Corporation, has resigned as its Pittsburgh, Pa., district manager and has opened an office in the Koppers Building, that city. He will act as manufacturers agent, representing various manufacturers of oil refinery and power plant equipment.

FRANK PHILLIPS, president of the Phillips Petroleum Company, received from employes in commemoration of the company's twentieth anniversary a badge patterned after Phillips service medals. It is 4 inches in diameter and made of brass from a valve used in the company's first gasoline plant. Four silver bars, each representing five years of service, run across the top of the emblem which was made by employes of the Lima gasoline plant at Snomac, Okla.

D. J. HARVEY, chosen president of the Fire and Safety Marshals of the National Petroleum Association at the annual meeting in Bradford, Pa., is plant superintendent for the Pennzoil Company, Oil City, Pa. CHARLES L. SUHR, president of the association, complimented the group on its work and urged that a bulletin be issued at regular intervals describing accidents that occur in the oil industry and recommending methods for preventing their repetition. "We must take care of the men whether they want it or not," said JOHN P. FALLON, of Standard Oil Company of Pennsylvania, who told how former carelessness and indifference in industry had been replaced by systematic campaigns for elimination of accidents.

## He Should Feel at Home

E. Holley Poe, new secretary of the Natural Gas Department of the American Gas Association, should feel at home, for ever since he left school he has been getting experience that is useful to him now. Born in Pawnee, Oklahoma Territory, he passed his boyhood in Tulsa and attended Tulsa schools and Morgan School, in Fayetteville, Tenn. He put in vacations working in oil and gas fields, starting with a shovel in the Bird Creek field of Oklahoma. For two years he studied law in the office of his father in Tulsa.

*E. HOLLEY POE*

The young man then joined the Slick Oil Company, serving in various general office capacities. When that organization was acquired in 1916 by the Sinclair Oil Company he went into business for himself, and in the succeeding two years with associates he promoted, built and sold several natural gasoline plants. In 1918 he took a position in the accounting department of the Tidal Oil Company in Tulsa. Two years later he and several associates organized the Wooster Oil Company, Henryetta Gas Company and Tiger Mountain Oil Company.

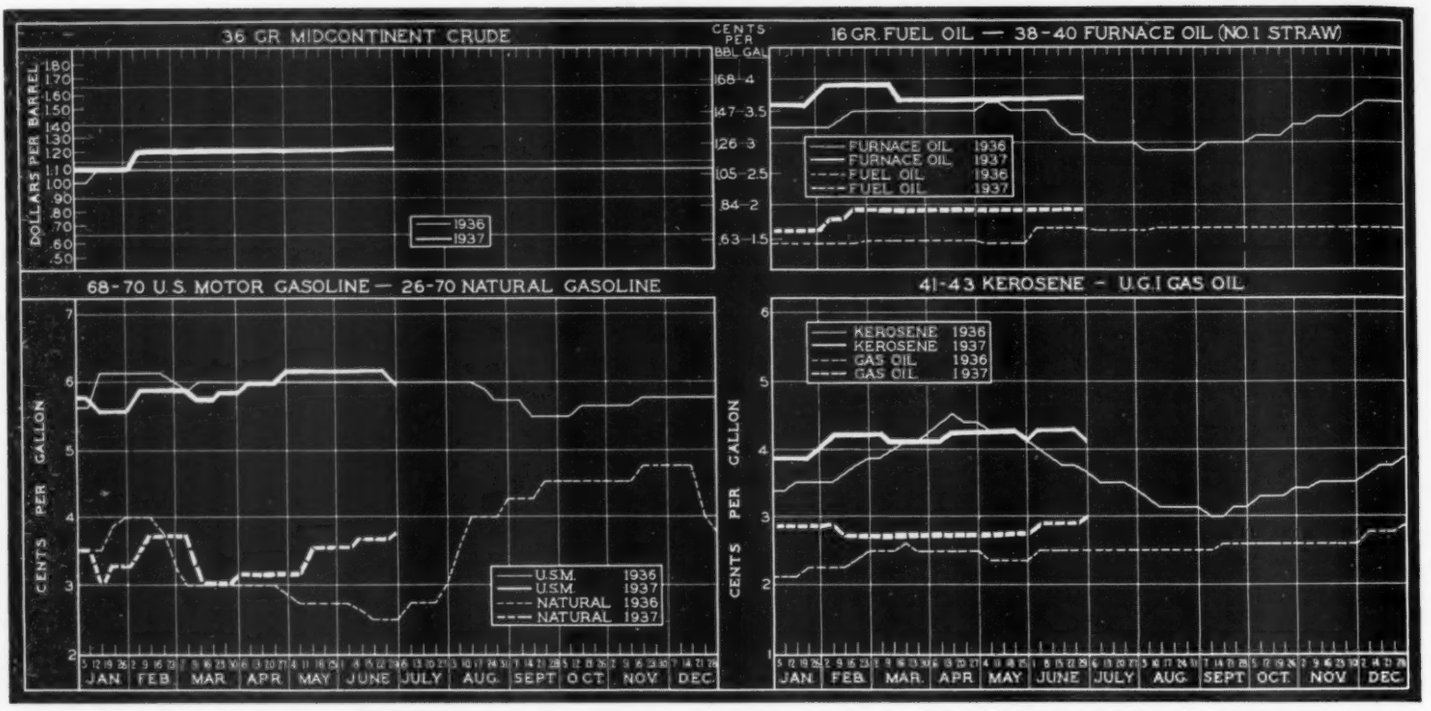
Mr. Poe was active in the operation of these companies till 1927, when their properties were purchased by the Central States Power & Light Corporation, Tulsa. He joined the Central States and became assistant general manager.

CHARLES T. JONES, geologist with the Stanolind Oil & Gas Company, Tucumcari, N. M., has been transferred to Casper, Wyo.

C. E. FRELICH, geologist, and JOHN THOMPSON, engineer, with Belmont Quadrangle Drilling Company of Bradford, Pa., visited the wildcat test that company is drilling in Lincoln Parish, Louisiana, last week.

J. F. LINCOLN, in whose honor was created the James F. Lincoln Arc Welding Foundation, sponsor of a $200,000 arc welding award program, is in England giving a series of talks at the invitation of engineering societies and institutes. Groups before whom he is scheduled to speak include the South Wales and Monmouthshire Institute of Engineers, the Institute of Engineers and Shipbuilders of Scotland, the Institute of Mechanical Engineers in London, and others.

HIESKI KURAKU, chemical engineer representing the Taiwan Mining Company, Ltd., of Formosa, Japan, visited Bartlesville and Tulsa this week on his tour of plants and laboratories in which gas processing and research work are in progress. He expects to return to New York within the next week and then he will sail for Europe. Upon his return to Japan he expects to report to his company the manner in which carbon black is made in the United States. Plans for building a carbon black plant on the island of Formosa are part of a construction program that may include an ammonia unit, ammonium sulfate plant and possibly a gas polymerization unit and hydrogen producing equipment.




**Representative Mid-Continent Quotations on Crude Oil and Refined Products, Basis Oklahoma (Group 3)**

# *Naturals and Motor Fuel Buoyant But Take Opposite Paths in Group 3*

**By T. F. SMILEY**

Natural gasoline and motor fuel were lively performers in the Group 3 market during the past week, but they moved in opposite directions on the price charts. Naturals up. Gasoline down.

The naturals, hard to hold for weeks, broke loose and recorded an eighth-cent advance. At this time last year the 26-70 grade was selling at 2½ cents, in contrast with the 3¾ cents ruling now. Active export demand, named as the principal factor in the prevailing brisk market, does not seem to have diminished. But domestic business too has had an important part in the buoyant market. The heavy crude used largely by Gulf Coast refiners produces a high-octane gasoline, along with a generous yield of fuel oils. The gasoline lacks volatility, however, and to supply this want refiners have been making large purchases of natural.

### No Damper on Buying

The higher price did not act as a damper on buying this week. On the contrary it seemed to quicken demand, for the character of the market indicated another advance soon was not unlikely. Refiners have been taking the maximum under their contracts. Neither refiners nor manufacturers have stored adequately for fall and winter requirements. Stocks in the field are much lower than usual. And such stocks as are to be found there are evidently being held against sales already made and not for speculation or for cold-weather needs.

Motor fuel presented a paradoxical picture. Though demand was running high and no topheavy stocks were reported, spot tankcar quotations on all grades were an eighth-cent below those of last week. The lower price stirred a wave of protest among Mid-Continent refiners, many of whom had been confidently looking for an advance in keeping with the rising volume of consumption. Some were short of material to fill orders and were scouting among other refiners for help.

"I was expecting higher prices, not lower," said one sales manager. "I am trying to buy gasoline right now to take care of our own customers, and it is not easy to find."

The commonly accepted explanation of the sag in tankcar prices right at the opening of the heavy consuming season is that the half-cent cut in tank-wagon prices by the Standard Oil Co. of Indiana created a situation in which prices to jobbers who have marginal contracts were lower than the spot price. And that, market observers say, is something that inevitably results in a weakened tankcar price because of "under-the-canopy" transactions between jobbers protected by marginal contracts and jobbers who buy in the open market. With gasoline obtainable by a contract-protected jobber at substantially less than had to be paid by the jobber who bought in the open market, some jobbers thus protected are understood to have taken more material than was needed for their own requirements and to have sold the excess to open-market jobbers, retaining part of the extra money and passing part of it on to the other jobber. Maintenance of the former tankcar prices in this case, as in others in the past, was said to be impossible.

Some Oklahoma refiners declared this week they virtually were ignoring the lowered tankcar quotations, however, finding themselves able in the presence of vigorous buying to ask the old prices and get them.

### Kerosene Easier

Kerosene was easier and off an eighth from last week. The tractor fuels were correspondingly soft and also down an eighth. Little change was observable in the heating oils, and prices stood unchanged. The heavy industrial fuels were not as active as they were a short time ago. U.G.I. gas oil was in demand, and there seemed to be none available outside the Oklahoma City field. Bright stocks and neutrals appear to be in satisfactory shape, with the former particularly firm.

### Refined Oil Market Barometer

Weakness in the gasoline tankcar market notwithstanding heavy consumption in territory affected by the Standard of Indiana's recent tank-wagon cut is causing uneasiness; but the hope is expressed that former tank-wagon prices will be restored, with consequent correction of tankcar irregularity. Kerosene and tractor fuels easier in agricultural areas.

**MID-CONTINENT.** Gasoline demand strong, but tankcar prices unsettled. Naturals up.

**EAST COAST.** Gasoline strong. Kerosene firm. Industrial fuels steady.

**GULF COAST.** Gasoline and kerosene firm.

**CALIFORNIA.** Gasoline steady. High-sulfur fuel oil weak, sulfur-free firm.

**PENNSYLVANIA.** Gasoline strong. Other light products holding. Lubes steadier.

**CHICAGO.** Gasoline consumption strong, but price structure unsteady. Kerosene quiet.

# North Atlantic Marketers Prepare for Record-Breaking Gasoline Season

**By H. STANLEY NORMAN**

NEW YORK, June 29.—With the peak gasoline consuming season in full swing, marketers in the North Atlantic territory are expecting the next two months to be record-breaking in at least one respect and are preparing for it. Some marketers are predicting that prices will move up at least another half cent per gallon to the tankcar trade in the area from Philadelphia north, but those who discount this possibility are almost as numerous. Definite improvement, however, is expected in the points at which gasoline prices are below what is considered normal, particularly in New England and in parts of New Jersey. While the present is considered the harvest season for gasoline sales, there is almost as much interest currently directed to kerosene and to a smaller extent to furnace oils. Kerosene has been on the strong side of the market particularly for the past two or three weeks. Evidence of the strength in kerosene is given by adjustment of prices on this product by Gulf Oil Corp. in Philadelphia. In lifting kerosene prices last week, Gulf followed the earlier lead of Standard Oil Co. of New Jersey and Atlantic Refining Co. Kerosene's market strength was not confined to the seaboard terminals of the tankcar trade, but was evident on the Gulf Coast and at inland Pennsylvania refining districts.

The limit in open charter tanker rates appears not to have been reached so far, although all observers are of the opinion that a reaction may set in soon. Reports were current last week that a boat had been chartered for movement of clean cargo from the Gulf Coast to north of Cape Hatteras for 60 cents per barrel. A report that still another tanker had been engaged for July movement of a cargo of gasoline north from the Gulf Coast for 65 cents per barrel could not be confirmed or pinned down.

Up to a certain level, the tanker market for movement of spot cargoes from the Gulf Coast north is unquestionably an important factor in the price of products. However, it was pointed out last week that elevation of the charter rates too high carries the threat of driving the independent marketer and occasional purchaser in cargo lots entirely out of the market. It was also pointed out by the same source that a vast bulk of the petroleum cargoes are moved to points of consumption or distribution by contracted boats and that materials to be moved are also either controlled or purchased on contract by the large buyers.

While kerosene is strong and the volume of gasoline moved against contracts with northern distributors is touching new peaks, gas oil remains the favored product in export business. Two cargoes of gas oil were reported sold on the Gulf Coast last week at a fraction over 4 cents per gallon. Suppliers are now generally asking 4.125 cents per gallon for export trade. Two cargoes of No. 2 fuel oil were also reported sold for coastwise shipment at about 4.125 cents per gallon, but some are still willing to do business in this material at 4.064 cents.

Industrial fuels remain strong and many refiners are in the open market for at least a part of their immediate and probable near future supplies. Bunker C fuel oil is firm at 95 cents per barrel on the Gulf Coast while suppliers in New York harbor continue to quote $1.35 to $1.50 per barrel. Some refiners in the low bracket of quotations are not interested in open market inquiries and are supplying only their regular contract customers on this basis. Gasoline of 65 octane rating is generally quoted at 8 cents per gallon for New York and New England delivery, although this price can be shaded at least a half cent per gallon in the open market. The open market, however, is limited in its ability to supply purchasers. The price of 7½ cents per gallon on 65 octane motor fuel also applies in some cases for New Jersey delivery among the larger plants.

There is some disagreement among observers over justification for the contract price level established for distillate fuel oils for winter delivery. Some of the jobbers are complaining that customers threaten to convert their burners to other types of fuel if the top of the bracket should be reached. Furthermore, it was reported that contracts in Westchester County were opened last week and revealed a bid of 6.73 cents with a top of 6.82 cents per gallon by one of the larger companies seeking to supply requirements of Nos. 2, 3 or 4 oil. It was also reported that a quotation of .0393 cent per gallon for No. 6 oil was submitted. The fear of smaller dealers that customers will desert to some other form of fuel if the winter price reaches the top of 8½ cents per gallon is not shared equally by all. Evidence that the public is becoming oil burner minded and that installations continue at record levels despite ample warning of price expectancy next winter is contained in statistics from all sources. Statistics on construction of new homes in this section of the country reveal an outstanding preference for oil burning heating systems.

The kerosene market in New York territory appears to be keeping pace with developments on the Gulf Coast, in Pennsylvania and with the seaboard tankcar quotations. Despite the advances posted by Standard of New Jersey, Atlantic, Gulf and Socony-Vacuum, some material is available at 5.75 to 5.875 cents per gallon. Up until a week ago, however, quotations of 5.5 cents per gallon were obtainable. There is talk in the trade that the volume of kerosene available on a basis of less than 6 cents per gallon is being absorbed rapidly and that all sellers will be up to approximately the levels now posted by the larger suppliers.

Retail gasoline prices have been unchanged for several weeks, lending further strength to the argument that contracts with distributors covering the remaining six months may act to hamper realization of greater benefits from otherwise improved conditions. In New England, prices quoted are strictly nominal due to the more favorable terms available to some of the long term contract distributors. This particular market has been sluggish for years, due largely to its accessibility by water from several directions. Lubricating oils have shown no recent change, although indications are that trading is somewhat less restricted in this material, particularly in the Pennsylvania district. Refiners were reported working even or ahead of their regular contract customers for the first time since February or March. The market is firm, however, and shipments against contracts are holding up well. Export inquiries for Pennsylvania neutrals and bright stock are again making their appearance, although no large sales in the open market have been reported recently. Shipments against contracts with buyers in Europe, however, are running as strong as with domestic customers. The unprece-

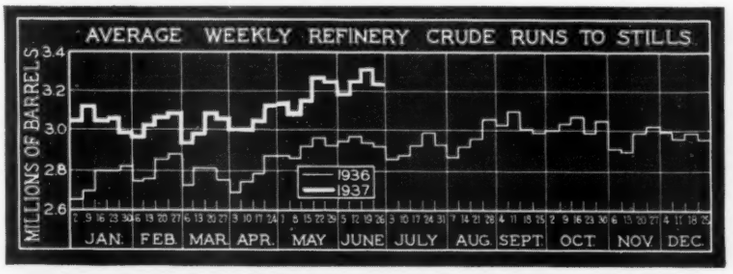
*(Continued on Page 104)*

## *A. P. I. Weekly Refinery Statistics*

**Week Ending June 26, 1937**

| | Capacity reporting (per cent) | Daily crude runs (bbls.) | Total gasoline stocks | Gas oil and fuel oil stocks |
|---|---|---|---|---|
| East Coast | 100.0 | 540,000 | 19,018,000 | 8,416,000 |
| Appalachian | 88.4 | 110,000 | 2,952,000 | 734,000 |
| Indiana, Illinois, Kentucky | 92.1 | 446,000 | 13,238,000 | 5,719,000 |
| Oklahoma, Kansas, Missouri | 84.6 | 296,000 | 8,057,000 | 3,174,000 |
| Inland Texas | 56.6 | 157,000 | 1,939,000 | 1,761,000 |
| Texas Gulf | 95.5 | 664,000 | 8,915,000 | 7,263,000 |
| Louisiana Gulf | 96.3 | 139,000 | 1,434,000 | 2,316,000 |
| North Louisiana and Arkansas | 63.7 | 41,000 | 470,000 | 389,000 |
| Rocky Mountains | 69.7 | 39,000 | 1,907,000 | 753,000 |
| California | 90.9 | 542,000 | 14,087,000 | 67,700,000 |
| Total reported | 88.8 | 2,974,000 | 72,017,000 | 98,225,000 |
| Estimated unreported | ..... | 261,000 | 3,410,000 | 2,170,000 |
| *Estimated total | ..... | 3,235,000 | 75,427,000 | 100,395,000 |
| *Estimated total previous week | ..... | 3,320,000 | 76,574,000 | 99,215,000 |
| *June 27, 1936 | ..... | 2,930,000 | 68,441,000 | 105,285,000 |

*Bureau of Mines, currently estimated.




## Stocks of Crude Oil in the United States

(BUREAU OF MINES ESTIMATES)

| | | |
|---|---|---|
| Week ending June 12, 1937 | 307,199,000 | barrels |
| Week ending June 5, 1937 | 307,223,000 | barrels |
| Week ending June 13, 1936 | 313,382,000 | barrels |

# RETAIL OIL MARKETS

Tank-wagon and filling station prices on gasoline and kerosene furnished by the larger marketing firms

Prices as of June 29, 1937

## Taxes

The gasoline quotations given in the following tables include the 1-cent federal tax, as well as state, county and city taxes. The gasoline is the regular or standard grade. In most areas a third grade and a premium grade are also available.

## Standard Oil Co. (Indiana)

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wag. | Dlr. | Inc. tax | tank-wag. |
| Chicago, Ill. | 15 5 | 13.5 | 4.0 | 10.1 |
| Decatur | 15 5 | 14 0 | 4.0 | 10.1 |
| Joliet | 15 5 | 14 0 | 4 0 | 10 1 |
| Peoria | 15 5 | 14.0 | 4.0 | 10 1 |
| Quincy | 15 3 | 13 8 | 4.0 | 9.9 |
| Davenport, Ia. | 15 5 | 14 0 | 4 0 | ‡13 1 |
| Des Moines | 15 3 | 13 8 | 4 0 | ‡12 9 |
| Mason City | 15 7 | 14 2 | 4 0 | ‡13 3 |
| Sioux City | 15 5 | 14 0 | 4 0 | ‡13 1 |
| Duluth, Minn. | 17 3 | 15 8 | 5.0 | 10.9 |
| Mankato | 16 9 | 15 4 | 5 0 | 10 5 |
| Twin Cities | 16 9 | 15 4 | 5 0 | 10 5 |
| Lacrosse, Wis. | 16 9 | 15 4 | 5 0 | 10 5 |
| Green Bay | 17 2 | 15 7 | 5 0 | 8 6 |
| Milwaukee | 16 8 | 15 3 | 5 0 | 10 4 |
| Detroit, Mich. | 15 4 | 13 9 | 4 0 | 9 8 |
| Grand Rapids | 16 5 | 15 0 | 4 0 | 10 9 |
| Saginaw | 16 3 | 14 8 | 4 0 | 8.5 |
| Evansville, Ind. | 17 0 | 15 5 | 5 0 | †10 6 |
| Indianapolis | 17 2 | 15.7 | 5 0 | †9 6 |
| South Bend | 17 4 | 15 9 | 5 0 | †9 6 |
| Fargo, N. Dak. | 16 9 | 15 4 | 4 0 | 11 5 |
| Minot | 18 1 | 16 6 | 4 0 | 12 7 |
| Huron, S. Dak. | 17 3 | 15 8 | 5 0 | 10 9 |
| Kans. City, Mo.* | 14 9 | 13 4 | 4 0 | 8 9 |
| St. Louis* | 15 2 | 13 7 | 4 0 | 9 8 |
| St. Joseph* | 14 9 | 11 4 | 4 0 | 6.9 |
| Wichita, Kans. | 14 4 | 12 9 | 4 0 | 9 0 |

*State tax 2 cents, 1-cent city tax and 1-cent federal tax. †Does not include 4-cent state tax. ‡Iowa kerosene prices include 3-cent state tax.

(Exclusive of state general sales taxes, except Indiana and South Dakota.)

Discounts to commercial consumers: On purchases per month off tank-wagon prices: 1,000 gallons or more, 1.5 cents off; minimum delivery 25 gallons.

## Stanolex Fuel Oil in Chicago

Effective Dec. 7, 1936, f.o.b. Chicago tank-wagon prices: Range oil, 1-99 gallons, 8.8 cents; 100-149 gallons, 7.8 cents; 150 gallons and over, 7.3 cents. Stanolex No. 1, 1-99 gallons, 8.8 cents; 100-149 gallons, 7.8 cents; 150 gallons and over, 7.0 cents. Stanolex furnace oil, 1-149 gallons, 7.8 cents; 150 gallons and over, 7.0 cents. Stanolex A, 1-399 gallons, 5.75 cents; 400 gallons and over, 4.75 cents. Stanolex B, 1-799 gallons, 5.75 cents; 800 gallons and over, 4.75 cents.

## Atlantic Coast District

STANDARD OIL CO. OF NEW JERSEY

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wag. dlr. | Tank car con'r. | Inc. tax | tank-wag. |
| Atl'tic City, N. J. | 13 0 | 11.5 | 4 0 | 8.0 |
| Newark | 13 0 | 11 5 | 4 0 | 8.0 |
| Annapolis, Md. | 15 1 | 13 6 | 5.0 | 10.0 |
| Baltimore | 14 5 | 13 0 | 5.0 | 8.5 |
| Cumberland | 16 9 | 14.4 | 5.0 | 10.0 |
| Wash'g'n, D. C.* | 12 5 | 11 0 | 3.0 | 9.0 |
| Danville, Va. | 17 7 | 15 2 | 6.0 | 12.9 |
| Norfolk | 16 5 | 14 0 | 6.0 | 11.5 |
| Petersburg | 16 8 | 14.3 | 6.0 | 11.7 |
| Richmond | 16 8 | 14.3 | 6 0 | 11.7 |
| Roanoke | 18 0 | 15 5 | 6.0 | 12.9 |
| Charles'n, W. V. | 16 3 | 13.8 | 6 0 | 12.6 |
| Parkersburg | 15 6 | 13 1 | 6 0 | 11.2 |
| Wheeling | 15 5 | 14.0 | 6.0 | 12.2 |
| Charlotte, N. C. | 18 9 | 16 4 | 7 0 | 13.6 |
| Hickory | 19 4 | 16 9 | 7 0 | 13.0 |
| Mt. Airy | 19 2 | 16.7 | 7 0 | 12.8 |
| Raleigh | 18 5 | 16 0 | 7 0 | 12 1 |
| Salisbury | 19 0 | 16 5 | 7 0 | 12.7 |
| Charleston, S. C. | 17 5 | 15 0 | 7 0 | 11.1 |
| Columbia | 18 5 | 16 0 | 7 0 | 12.1 |
| Spartanburg | 19 2 | 16.7 | 7.0 | 12.9 |

*Standard of N. J. has discontinued posting service-station prices at all above points except at Washington where a station price of 16 cents is in effect.

Price basis to commercial consumers, effective March 8, 1937, in Maryland, District of Columbia, and in Arlington and Fairfax counties in Virginia; and March 12 in New Jersey: To contract accounts purchasing at least one full compartment at time by hose connection, on yearly purchases: From 2,500 to 100,000 gallons, consumer tank-wagon price at time and place of delivery; 100,000 gallons per year, consumer tankcar price plus .5 cent per gallon. Consumer tank-wagon price generally will be equivalent to dealer tank-wagon price less .5 cent per gallon.

Effective May 15, 1937, in North and South Carolina, West Virginia and Virginia (except Arlington and Fairfax counties): Commercial consumers taking deliveries of 50 gallons (W. Va., 100 gallons) or more at one time will be billed at posted consumer tank-wagon price. Accounts taking deliveries of less than 50 gallons (W. Va., 100 gallons) will be billed at 4 cents per gallon over posted consumer tank-wagon price. Generally the posted consumer tank-wagon price will be equivalent to the dealer price less .5 cent per gallon.

Discount for kerosene, 1 cent off tank-wagon price for 25 gallons or more under contract (contract not necessary in Baltimore) except no discount in New Jersey.

## Southern District

STANDARD OIL CO. OF KENTUCKY

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wag. | Net dlr. | Inc. tax | tank-wag. |
| Atlanta, Ga. | 21 0 | 18 0 | 7 0 | *13 0 |
| Augusta | 21.0 | 18 0 | 7 0 | *14.0 |
| Macon | 21 5 | 18 5 | 7 0 | *14 5 |
| Savannah | 19.0 | 16.0 | 7.0 | *12.0 |
| Birm'ham, Ala. | 21 0 | 18 0 | 8 0 | 12 0 |
| Mobile | 22 0 | 19 0 | 9 0 | 11 0 |
| Montgomery | 22.0 | 19 0 | 9 0 | 14.5 |
| Jackson, Miss. | 21 0 | 18 0 | 7 0 | *13 0 |
| Vicksburg | 20 5 | 17 5 | 7 0 | *13.0 |
| Jacksonville, Fla. | 20 5 | 17 5 | 8 0 | 11.0 |
| Miami | 20 5 | 17.5 | 8 0 | †11.5 |
| Pensacola | 22 0 | 19 0 | 9 0 | 12 0 |
| Tampa | 21 5 | 18 5 | 8 0 | 11.0 |
| Lexington, Ky. | 20 0 | 17 0 | 6 0 | 11.0 |
| Covington | 19 5 | 16 5 | 6 0 | 11.0 |
| Louisville | 20 0 | 17 0 | 6 0 | 10 5 |
| Paducah | 20.0 | 17.0 | 6.0 | 8.0 |

Price basis to tank-wagon consumers: Effective January 4, 1937, 3 cents per gallon below tank-wagon price. Kerosene prices in all states subject to 2 cents discount except in Kentucky where prices are net.

*Includes 1-cent state tax. †Subject to 2-cent discount.

Montgomery, Ala., has a county tax of 1 cent per gallon, and a city tax of 1 cent per gallon on gasoline, in addition to state tax; and 1 cent per gallon on kerosene. Mobile, Ala., has a city gasoline tax of 2 cents per gallon; Birmingham, Ala., has a city gasoline tax of 1 cent per gallon; Pensacola, and Tampa, Fla., have a city gasoline tax of 1 cent.

## Rocky Mountain District

CONTINENTAL OIL CO.

| | Gasoline | | Kero. |
|---|---|---|---|
| | Dealer | Inc. tax | tank-wag. |
| Denver, Colo. | 17 5 | 5 0 | 11 5 |
| Grand Junction | 20 0 | 5 0 | 15.0 |
| Pueblo | 16 0 | 5 0 | 10 5 |
| Casper, Wyo. | 18 0 | 5 0 | 11.5 |
| Cheyenne | 18 0 | 5 0 | 13.0 |
| Butte, Mont. | 19 5 | 6 0 | 15 5 |
| Billings | 21 5 | 6 0 | 15 5 |
| Helena | 21.5 | 6 0 | 15.5 |
| Great Falls | 21 5 | 6 0 | 15.5 |
| Salt Lake, Utah | 19 5 | 5 0 | 16 0 |
| Twin Falls, Ida. | 21 5 | 6 0 | 18 0 |
| Boise | 21.5 | 6 0 | 18.0 |
| Albuquerque, N. M. | 17.5 | 6.5 | 12.0 |

## Ohio

STANDARD OIL CO. OF OHIO

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wag. con'r. | Di-vided dlr. | Inc. tax | tank-wag. |
| Ohio points | 17.0 | 16.0 | 5.0 | *13.5 |

*Includes state tax of 1 cent.

Divided dealer price is also price to authorized agents, exclusive of .5 cent rental. Tank-wagon price is price to commercial consumers in deliveries of 25 gallons or more; less than 25 gallons gets service-station price.

## Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wag. | Serv. sta. | Inc. tax | tank-wag. |
| San Francisco | 17 5 | 18 5 | 4 0 | 11.5 |
| Los Angeles | 17 0 | 18 0 | 4 0 | 9 0 |
| Fresno, Calif. | 18 5 | 19 5 | 4 0 | 12 0 |
| Phoenix, Ariz. | 21 0 | 22 0 | 6 0 | ‡16 0 |
| Reno, Nev. | 20 0 | 21 0 | 5 0 | 13 0 |
| Portland, Ore. | 20 0 | 21 0 | 6 0 | 13 5 |
| Seattle, Wash. | 20 0 | 21 0 | 6 0 | 13 5 |
| Spokane | 23 0 | 24 0 | 6 0 | 16 5 |
| Tacoma | 20.0 | 21.0 | 6.0 | 13.5 |

‡Includes 5-cent state tax.

Discounts to dealers: On gasoline, off tank-wagon price, to 100 per cent dealers, 3 cents; to split dealers, 2 cents. To commercial consumers: on tank-wagon price: on single deliveries of 40 gallons and over, advance quantity discount extended at time of delivery, 3 cents. Service station schedule applies on single deliveries less than 40 gallons. On kerosene in tankcar, transport truck and trailer delivery, 3 cents off tank-wagon price; plant deliveries to jobbers, 2.5 cents below tank-wagon.

## New York and New England

SOCONY-VACUUM OIL CO., INC.

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wag. dlr. | Tank car con'r. | Inc. tax | tank-wag. |
| Albany, N. Y. | 15.0 | 13.5 | 5.0 | 8.25 |
| *Met. N. Y.: | | | | |
| Manh't'n, Br'nx | 14 5 | 13 0 | 5 0 | 7.75 |
| Staten Island | 14 75 | 13 0 | 5 0 | 7.75 |
| Q'ns & Brklyn | 14 5 | 13 0 | 5 0 | 7.75 |
| Buffalo | 15 3 | 13 67 | 5 0 | 8 00 |
| Rochester | 15 3 | 13 74 | 5 0 | 8 25 |
| Syracuse | 15 3 | 13 7 | 5 0 | 9.00 |
| Boston, Mass. | 14 0 | 12 5 | 4 0 | 7.50 |
| Portland, Me. | 15 8 | 13 5 | 5 0 | 8.50 |
| Manch'ter, N. H. | 16 3 | 14 0 | 5 0 | 8 50 |
| Burlington, Vt. | 15.9 | 13.9 | 5.0 | 8.75 |

*Does not include 2 per cent city sales tax which is calculated on basis of net retail price exclusive of state and federal taxes.

Price basis to undivided dealer: Posted dealer tank-wagon price less .5 cent. Price basis to commercial consumer: Effective Nov. 15, 1936, monthly purchases of 25,000 gallons and over, consumer tankcar prices at delivery point plus .5 cent per gallon; monthly purchases of 5,000 to 25,000 gallons, undivided dealer price at delivery point: Monthly purchases under 5,000 gallons, pay divided dealer tank-wagon price at delivery point.

## Nebraska

STANDARD OIL CO. OF NEBRASKA

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wag. | Dlr. | Inc. tax | tank-wag. |
| Omaha | 17 9 | 16 4 | 6 0 | 10.4 |
| McCook | 18 0 | 17 1 | 6.0 | 10 0 |
| Norfolk | 18 3 | 16 8 | 6 0 | 11.2 |
| North Platte | 18 7 | 17 2 | 6 0 | 11 2 |
| Scotts Bluff | 19 4 | 17 9 | 6 0 | 10.9 |

Discounts to commercial consumers for tank-wagon deliveries covered only by standard commercial consumers contract effective Jan. 1, 1935.

## Oklahoma and Arkansas

CONTINENTAL OIL CO.

| | Gasoline | | Kero. |
|---|---|---|---|
| | Dealer | Inc. tax | tank-wag. |
| Muskogee, Ok. | 15 0 | 5.0 | 7.0 |
| Oklahoma City | 15 0 | 5 0 | 8.0 |
| Tulsa | 14 0 | 5.0 | 7.0 |
| Ft. Smith, Ark. | 15 0 | 5.0 | 10.0 |
| Little Rock | 17 5 | 7.5 | 9.5 |
| Texarkana | 15.0 | 5.0 | 9.0 |

## Texas

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wag. | Serv. sta. | Inc. tax | tank-wag. |
| Dallas, Tex. | 14 0 | 18 0 | 5 0 | 8 0 |
| Fort Worth | 14 0 | 18 0 | 5 0 | 8.0 |
| Houston | 14 5 | 18 5 | 5 0 | 8.0 |
| San Antonio | 14.5 | 18.5 | 5.0 | 8.0 |

## Central South District

STANDARD OIL CO. OF LOUISIANA

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wag. dlr. | Tank car con'r. | Inc. tax | tank-wag. |
| N. Orleans, La. | 20 0 | 17.5 | *10 0 | †14.0 |
| Baton Rouge | 18 0 | 15 5 | 8 0 | 12.0 |
| Alexandria | 18 5 | 16 0 | 8.0 | 12.0 |
| Lafayette | 19 0 | 16 5 | 8 0 | 12.5 |
| Lake Charles | 19 0 | 16 5 | 8 0 | 12.5 |
| Shreveport | 17 5 | 15 0 | 8.0 | 9.5 |
| Knoxville, Tenn. | 21 0 | 18 5 | 8 0 | 14.0 |
| Memphis | 19 0 | 16 5 | 8 0 | 12.0 |
| Chattanooga | 20 5 | 18 0 | 8 0 | 13 5 |
| Nashville | 20 0 | 17 5 | 8 0 | 11 0 |
| Bristol | 19.75 | 18.5 | 8.0 | 14.5 |

*Includes 2-cent parish tax. †Includes 1-cent parish tax and 1-cent state tax.

Standard of La. has transferred all stations to dealers except in New Orleans and Baton Rouge where station prices are 23.5 and 21.5 cents per gallon, respectively.

Price basis to commercial consumers: Effective May 15, 1937, deliveries of 50 gallons or more in one delivery takes posted consumer tank-wagon price. Accounts taking deliveries of less than 50 gallons at one time pay posted consumer tank-wagon price plus 4 cents per gallon. Generally, the posted consumer tank-wagon price will be equivalent to the dealer price less .5 cent per gallon.

Louisiana kerosene prices include 1-cent state tax.

## Pennsylvania, Delaware and Part of New England

ATLANTIC REFINING CO.

| | Gasoline | | | Kero. |
|---|---|---|---|---|
| | Tank wag. dlr. | Tank car con'r. | Inc. tax | tank-wag. |
| Philadelphia, Pa. | 14 0 | 12 5 | 5 0 | 10.5 |
| Pittsburgh | 15 5 | 13 5 | 5 0 | 11 0 |
| Allentown | 14 5 | 13 25 | 5 0 | 11.0 |
| Erie | 14.5 | 13 0 | 5.0 | 10.0 |
| Scranton | 14.5 | 13 25 | 5 0 | 11.0 |
| Altoona | 15 5 | 13.5 | 5 0 | 11 0 |
| Dover, Del. | 14 0 | .... | 5 0 | 11.0 |
| Wilmington | 13 5 | .... | 5 0 | 11.0 |
| Springf'ld, Mass. | 14 8 | .... | 4 0 | 9 0 |
| Worcester | 13 8 | .... | 4 0 | 9 0 |
| Hartford, Conn. | 14 6 | .... | 4 0 | 9 0 |
| New Haven | 14 0 | .... | 4 0 | 9 0 |
| Providence, R. I. | 12.0 | .... | 3 0 | 8.25 |

Price basis to undivided dealers, dealer tank-wagon price less .5 cent per gallon. Price basis to commercial consumers in Pennsylvania and Delaware, effective March 11, 1937: Consumers under contract using 100,000 gallons or more per year full compartment hose deliveries, tankcar plus .5 cent. Consumers under contract using less than 100,000 gallons per year compartment hose deliveries, undivided dealer price. Consumers under contract less than full compartment delivery, consumers not under contract less than full compartment delivery, and consumers not under contract full compartment delivery, divided dealer price. Less than 25 gallons, tank-wagon delivery, 4 cents per gallon above undivided dealer price.

## Naphtha

STANDARD OIL CO. (INDIANA)

| | Tank-wagon* |
|---|---|
| Oleum spirits | 15.7 |
| V.M.&P. naphtha | 16.0 |
| Cleaners' naphtha | 15.0 |
| Stanisol | 15.0 |

*Prices include 3-cent Illinois tax, but not 1-cent federal tax or 2 per cent retail occupational tax.

Prices f.o.b Chicago. Each price subject to discount of 1 cent per gallon for 150 gallon lots if covered by contract.

## Canada*

3 Star Imperial Gasoline
IMPERIAL OIL, LTD.

| | Tank-wag. | Inc. tax | Kero. tank-wag. |
|---|---|---|---|
| Halifax, N.S. | 24 0 | 8 0 | 18.5 |
| St. John, N.B. | 24 0 | 8 0 | 18.5 |
| Montreal, Que. | 20 0 | 6 0 | 17.5 |
| Toronto, Ont. | 22 0 | 6 0 | 17 0 |
| Hamilton, Ont. | 22 0 | 6 0 | 17.0 |
| Winnipeg, Man. | 28 2 | 7 0 | 20 7 |
| Brandon, Man. | 29 8 | 7 0 | 22 3 |
| Regina, Sask. | 29 5 | 7 0 | 22.0 |
| Saskatoon, Sask. | 32 3 | 7 0 | 24.8 |
| Edmonton, Alta. | 30 5 | 7 0 | 24 2 |
| Calgary, Alta. | 28 0 | 7 0 | 21.5 |
| Vancouver, B.C. | 23 0 | 7 0 | 23 0 |

*Imperial gallon used in Canada.

Divided dealers pay tank-wagon price. Discount to undivided dealers, 1 cent below tank-wagon price. In maritime provinces both divided and undivided dealers pay tank-wagon price.

## Retail Price Changes

Atlantic Refining Co. reduced tank-wagon gasoline one-half cent in Dover May 10 and .1 cent in Providence June 11; reduced tank-wagon gasoline one-half cent in Worcester June 11. Advanced tank-wagon kerosene 1½ cent in Springfield June 15, 1 cent in Worcester June 15, 2 cents in Hartford June 15, and in New Haven June 16, one-half cent in Providence June 15.

Standard Oil Co. (Ind.) June 18 advanced tank-wagon kerosene in Wichita .1 cent.

## New York Market

*(Continued from Page 103)*

dented demand for gas oil in the Gulf Coast export market, chiefly for shipment to Great Britain, may be explained by the rapid expansion of diesel powered automotive units in England since the first of the year. It was reported in private statistics last week that the London Omnibus Co. has approximately 1,600 units now operating on diesel fuel and that the concern is converting about 10 additional units each week.

# PRICES OF REFINED PRODUCTS

All quotations f.o.b. plant in cars for interstate or export movement except as otherwise noted

Prices as of June 29, 1937

The following quotations are exclusive of the federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils.

## Refinery Gasoline

**OKLAHOMA (Group 3)—**

| | | |
|---|---|---|
| U. S. Motor grades: | | |
| 62 oct. and below (3d gr.) | .05 | .05¼ |
| 63-67 octane | .05⅜ | .05⅝ |
| 68-70 octane (regular) | .06 | .06¼ |
| 60-62 400 grades: | | |
| 62 oct. and below (3d gr.) | .05 | .05¼ |
| 63-67 octane | .05⅜ | .05⅝ |
| 68-70 octane (regular) | .06 | .06¼ |
| 64-66 375 | .05 | .05¼ |
| 68-70 360 | .05⅛ | .05⅜ |

**NORTH TEXAS—**

| | | |
|---|---|---|
| U. S. Motor grades: | | |
| 62 octane and below | .05 | .05¼ |
| 63-67 octane | .05⅜ | .05⅝ |
| 68-70 octane (regular) | .06 | .06¼ |
| 60-62 400 | .05 | .05¼ |
| 64-66 375 | .05 | .05¼ |

**NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—**

| | |
|---|---|
| U. S. Motor grades: | |
| 62 octane and below | .05⅝ |
| 63-67 octane | .06 |
| 68-70 octane (regular) | .06½ |

**ARKANSAS (Ark., N. La., Miss. del.)—**

| | | |
|---|---|---|
| U. S. Motor grades: | | |
| 62 octane and below | | .05½ |
| 63-67 octane | .06 | .06¼ |
| 68-70 octane (regular) | | .06½ |

**CHICAGO (Based on Group 3)—**

| | | |
|---|---|---|
| U. S. Motor grades: | | |
| 62 octane and below | .05 | .05¼ |
| 63-67 octane | .05⅜ | .05⅝ |
| 68-70 octane (regular) | .06 | .06¼ |
| 60-62 400 grades: | | |
| 62 octane and below | .05 | .05¼ |
| 63-67 octane | .05⅜ | .05⅝ |
| 68-70 octane (regular) | .06 | .06¼ |
| 64-66 375 | .05 | .05¼ |
| 68-70 360 | .05⅛ | .05⅜ |

**PENNSYLVANIA (Inland refineries)—**

| | |
|---|---|
| 58-60 U. S. Motor: | |
| Below 60 octane | .06 |
| 60-64.9 octane | .07⅜ |
| 65-70 octane | .07½ |
| 64-66 375 | .06¼ |
| 68-70 350 | .06¾ |

**CALIFORNIA (domestic movement)—**

| | | |
|---|---|---|
| 54-58 U. S. Motor | .07½ | .08½ |
| 58-60 400, 65 oct. and higher | .08¼ | .09¼ |

**EAST COAST (domestic)—**

| | | |
|---|---|---|
| U. S. Motor below 60 octane: | | |
| *New York (Bayonne) | | .06¾ |
| Baltimore | | .06¾ |
| U. S. Motor, 60-64.9 octane: | | |
| *New York (Bayonne) | .07 | .07¼ |
| Philadelphia | .07 | .07¼ |
| Boston | | .07¼ |
| Baltimore | .07 | .07¼ |
| Charleston, S. C. | | .07¼ |
| U. S. Motor, 65 and above: | | |
| *New York (Bayonne) | .07½ | .08 |
| Philadelphia | .07¼ | .07¾ |
| Boston | .07½ | .08 |
| Baltimore | | .07½ |
| Charleston, S. C. | | .07½ |

*All grades of gasoline one-eighth to one-fourth cent less for barge shipments. New York harbor prices are for New York and New England delivery. Prices for New Jersey delivery one-fourth cent lower.

**GULF COAST (domestic)—**

| | | |
|---|---|---|
| U. S. Motor grades: | | |
| Below 60 octane | .06 | .06¼ |
| 60-64.9 | | .06¼ |
| 65 octane and higher | | .06½ |

## Naphtha

**PENNSYLVANIA (Inland refineries)—**

| | |
|---|---|
| 50-52 450 (blending) | .05⅞ |
| 52-54 450 (blending) | .05⅞ |
| 54-56 450 (blending) | .06 |

## Natural Gasoline

**OKLAHOMA (Group 3)—**

| | |
|---|---|
| Grade 26-70 | .03¾ |
| Grade 18-55 | .04½ |

**NORTH TEXAS—**

| | |
|---|---|
| Grade 26-70 | .03¾ |
| Grade 18-55 | .04½ |

**CALIFORNIA—**

| | | |
|---|---|---|
| 75-85 375-390 | .06¾ | .07½ |

**NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—**

| | | |
|---|---|---|
| Grade 26-70 | .04 | .04⅛ |

## Tractor Fuel

**OKLAHOMA (Group 3)—**

| | | |
|---|---|---|
| 40-42 gr., 315-325 i.b.p., 110 flash, 540-550 e.p. | .04⅛ | .04¼ |
| 41-43 gr., 300-350 i.b.p., 110-125 flash, 500-520 e.p. | .04¼ | .04⅜ |
| 46-48 gr., 210-230 i.b.p., 480 max. e.p. | .04¾ | .04⅞ |

## Kerosene

(All kerosene water white)

**OKLAHOMA (Group 3)—**

| | | |
|---|---|---|
| 41-43 | .04⅛ | .04⅜ |
| 42-44 | .04⅜ | .04½ |

**NORTH TEXAS—**

| | | |
|---|---|---|
| 41-43 | .04¼ | .04⅜ |

**NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—**

| | | |
|---|---|---|
| 41-43 | .04½ | .04⅝ |

**ARKANSAS (Ark., N. La., Miss. del.)—**

| | |
|---|---|
| 41-43 | .04¾ |

**PENNSYLVANIA (Inland refineries)—**

| | |
|---|---|
| 45 | .04¾ |
| 46 | .04⅞ |
| 47 | .05 |

**CHICAGO (Based on Group 3)—**

| | | |
|---|---|---|
| 41-43 | .04⅛ | .04⅜ |
| 42-44 | .04⅜ | .04½ |

**CALIFORNIA (Pac. Coast market)—**

| | | |
|---|---|---|
| 38-43 high burning test | .04 | .05 |

**NEW YORK (Bayonne, N. J.)—**

| | | |
|---|---|---|
| 41-43 | .05½ | .05¾ |

***GULF COAST (domestic)—**

| | | |
|---|---|---|
| 41-43 | .04⅞ | .05 |

*Barge price one-eighth cent lower.

## Furnace Oil

**OKLAHOMA (Group 3)—**

| | | |
|---|---|---|
| No. 1 prime white, 38-42 | .03⅞ | .04 |
| No. 1 straw, 38-40 | .03⅝ | .03¾ |
| No. 2 straw, 32-36 | .03½ | .03⅝ |
| No. 2 dark, 32-36 | .03¼ | .03½ |
| No. 3, zero to 15, 28-32 | .03¼ | .03¾ |
| No. 3, 15 and above, 28-32 | .02⅝ | .02¾ |

**NORTH TEXAS—**

| | | |
|---|---|---|
| No. 1 prime white, 38-42 | | .04 |
| No. 1 straw, 38-40 | .03⅝ | .03¾ |

**NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—**

| | | |
|---|---|---|
| No. 2, 32-36 | .03⅜ | .03⅝ |

**ARKANSAS (Ark., N. La., Miss. del.)—**

| | | |
|---|---|---|
| No. 2, 32-36 | .03⅝ | .03¾ |

**CHICAGO (based on Group 3)—**

| | | |
|---|---|---|
| No. 1 prime white, 38-40 | .03⅞ | .04 |
| No. 1 straw, 38-40 | .03⅝ | .03¾ |
| No. 2 straw, 32-36 | .03½ | .03⅝ |
| No. 2 dark, 32-36 | .03¼ | .03½ |
| No. 3, zero to 15, 28-32 | .03¼ | .03¾ |
| No. 3, 15 and above, 28-32 | .02⅝ | .02¾ |

**NEW YORK (Bayonne, N. J.)—**

| | | |
|---|---|---|
| *No. 1 | | .05¾ |
| *No. 2 | .05⅝ | .05⅞ |
| *No. 4 | .05⅛ | .05⅝ |

*Barge deliveries one-eighth to one-fourth cent under above, tankcar price.

## Gas Oil and Fuel Oil

(Gas oil per gal.; fuel oil per bbl.)

**OKLAHOMA (Group 3)—**

| | | |
|---|---|---|
| U.G.I. gas oil | .03 | .03⅛ |
| No. 4, low cold test, 24-28 | 1.05 | 1.12½ |
| No. 4, 15 and above, 24-28 | .90 | .95 |
| No. 5, low cold test, 18-22 | .85 | .90 |
| Below 18 fuel oil, industrial | .80 | .85 |

**NORTH TEXAS—**

| | | |
|---|---|---|
| U.G.I. gas oil | .03 | .03⅛ |
| No. 4, low cold etst, 24-28 | 1.05 | 1.12½ |
| No. 5, low cold test, 18-22 | .85 | .90 |
| Below 18 fuel oil, industrial | .80 | .85 |

**NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—**

| | | |
|---|---|---|
| 1 -14 fuel oil, industrial | .80 | .85 |

**CHICAGO (Based on Group 3)—**

| | | |
|---|---|---|
| U.G.I. gas oil | .02⅞ | .03 |
| No. 4, low cold test, 24-28 | 1.05 | 1.12½ |
| No. 4, 15 and above, 24-28 | .90 | .95 |
| No. 5, low cold test, 18-22 | .85 | .90 |
| No. 6, low cold test, 10-16 | .80 | .85 |

**PENNSYLVANIA (Inland refineries)—**

| | | |
|---|---|---|
| 36-40 | .04⅜ | .04½ |

**CALIFORNIA—**

| | | |
|---|---|---|
| Los Angeles: | | |
| 30-34 gas oil, per bbl. | 1.15 | 1.35 |
| 24 plus diesel, per bbl. | 1.17 | 1.35 |
| 24 plus diesel (bunkers) | 1.50 | 1.65 |
| 12-16 (bunkers at tidewater) | 1.05 | 1.20 |
| 10-16 (cargo lots) | .95 | 1.10 |
| 12-17 (tankcars) | 1.00 | 1.15 |
| 10-17 (high sulfur) | .60 | .90 |
| San Joaquin Valley: | | |
| 10-18 (tankcars) | .80 | 1.00 |
| 24 plus diesel, per bbl. | 1.45 | 1.65 |
| San Francisco: | | |
| 27 plus diesel | | 1.65 |
| 24 plus diesel (bunkers) | | 1.70 |
| 10-16 (bunkers) | | 1.15 |

**GULF COAST—**

| | | |
|---|---|---|
| 28-30 gas oil | .04⅛ | .04¼ |
| 28-30 diesel (bunkers) | 1.65 | 1.90 |
| Bunkers (bulk cargoes) | | .95 |
| Bunker C (bunkers) | | 1.05 |

**NEW YORK (Bayonne, N. J.)—**

| | |
|---|---|
| 27 plus, gas oil | .04¾ |
| 28-30 diesel (lighterage 6¼c per bbl.) | 2.20 |
| 28-30 diesel (tankcars) | .05 |
| Bunker C (to ocean-going ships in N. Y. harbor) | 1.35 1.50 |
| Industrial fuel (tankcars) | .04½ |

Lighterage charge 5c bbl. additional.

## Bright and Steam Refined

**OKLAHOMA (Group 3)—**

| | |
|---|---|
| Bright Stocks: | |
| 190-200 D, 15-25 | .23 |
| 150-160 D, 0-10 | .20 |
| 150-160 D, 15-25 | .19½ |
| 150-160 E, 15-25 | .19 |
| 100-110 D, 0-10 | .18 |
| Steam refined: | |
| 631 green (treated) | .17½ |
| 600 dark green (untreated) | .05 |

**PENNSYLVANIA—**

| | | |
|---|---|---|
| Bright Stocks (Pennsylvania Grade No. 8 color, 145-50 at 210, 540-550 flash): | | |
| 10 pour test | .27 | .27½ |
| 15 pour test | .26 | .26½ |
| 20 pour test | .25 | .25½ |
| 25 pour test | .24 | .24¼ |
| Steam refined: | | |
| 600 | | .16 |
| 650 | | .18 |
| 600 Pennsylvania flash | | .19 |
| 630 flash | | .23 |
| 600 Warren E filtered | | .19 |

## Neutral Oil

(Vis. at 100° F. except Pennsylvania and color N.G.A.)

**OKLAHOMA (Group 3)—**

| | | |
|---|---|---|
| Zero to 10 Cold Test: | | |
| 150-3 | | .09 |
| 180-3 | | .10 |
| 180-4 | | .09½ |
| 200-3 | | .10½ |
| 200-4 | | .10 |
| 250-3 | | .11½ |
| 250-4 | | .11 |
| 280-3 | | .12½ |
| 280-4 | | .12 |
| 300-3½ | | .13 |
| 400-3½ | | .14 |
| 100-2½ paraffin oil | | .05¾ |
| 15-20 Cold Test: | | |
| 200-3 | | .10 |
| 200-4 | | .09½ |
| 250-3 | | .11 |
| 250-4 | | .10½ |
| 280-3 | | .12 |
| 280-4 | | .11½ |

**GULF COAST—**

| | | |
|---|---|---|
| Pale Oils: | | |
| 200-3 | .07 | .07¼ |
| 300-3 | .07½ | .07¾ |
| 500-3½ | .08½ | .08¾ |
| 750-3½ | .08⅝ | .09¼ |
| 1,200-3½ | .09½ | .09¾ |
| 1,500-4 | .09¾ | .10 |
| Red Oils: | | |
| 200-5-6 | .07¼ | .07½ |
| 300-5-6 | .07¼ | .07½ |
| 500-5-6 | .08 | .08½ |
| 750 | .08¾ | .09 |
| 1,200-5-6 | .09¼ | .09½ |

**CALIFORNIA (moving to dom. market)**

| | | |
|---|---|---|
| Pale Oils: | | |
| 100-2½-3 | .07 | .08 |
| 200-2½-3 | .07 | .08 |
| 300-2½-3 | .07 | .08 |
| 400-3-4 | .09 | .11 |
| 540-3-4 | .09 | .11 |
| 550-3-4 | .09 | .11 |
| 600-3-4 | .09 | .11 |
| Red Oils: | | |
| 200-4-5 | .07 | .08 |
| 300-5-6 | .07 | .08 |
| 350-5-6 | .10½ | .11½ |
| 400-5-6 | .10½ | .11½ |
| 450-5-6 | .10½ | .11½ |
| 500-5-6 | .10½ | .11½ |
| 600-5-6½ | .10½ | .11½ |
| 700-6½ plus | .10½ | .11½ |
| 750-6½ plus | .10½ | .11½ |
| 900-6½ plus | .10½ | .11½ |

**PENNSYLVANIA—**

| | | |
|---|---|---|
| 150 vis. at 750° F. color, 400-405 flash: | | |
| Zero pour test | .24½ | .25 |
| 10 pour test | .23½ | .24 |
| 15 pour test | .23 | .23½ |
| 25 pour test | .22 | .22½ |
| 180 vis. at 70° F., 3 color: | | |
| 25 pour test | .25 | .25½ |
| 200 vis. at 70° F., 3 color: | | |
| Zero pour test | .29 | .29½ |
| 10 pour test | .28 | .28½ |
| 15 pour test | .27½ | .28 |
| 25 pour test | .26½ | .27 |

## Wax and Petrolatum

(Prices per pound)

**OKLAHOMA (Group 3)—**

| | | |
|---|---|---|
| 124-126 (a.m.p.) w.c. scale | .02⅞ | .03 |

**PENNSYLVANIA (Inland refinery)—**

| | | |
|---|---|---|
| 122-124 (a.m.p.) w.c. scale | .0290 | .0295 |
| 124-126 (a.m.p.) w.c. scale | .0295 | .0300 |

**NEW YORK—**

| | | |
|---|---|---|
| Wax in bags fully refined: | | |
| 122-125 (a.m.p.) wax | | .0445 |
| 125-127 (a.m.p.) wax | | .0455 |
| 128-130 (a.m.p.) wax | | .0480 |
| 130-132 (a.m.p.) wax | | .0505 |
| 133-135 (a.m.p.) wax | | .0535 |
| 135-137 (a.m.p.) wax | | .0560 |
| 124-126 (a.m.p.) w.s. | .0250 | .0255 |
| 124-126 (a.m.p.) y.s. | .0260 | .0265 |
| Petrolatum in barrels, carload lots: | | |
| Dark green | | .01⅞ |
| Amber | .02⅞ | .03 |
| Extra amber | .03 | .03⅛ |
| Lily white | .06⅝ | .06¾ |
| Snow white | .07¾ | .07⅞ |
| Cream | .05⅝ | .05¾ |

## Export Prices

### GASOLINE

**GULF COAST—**

| | | |
|---|---|---|
| U. S. Motor | .05⅞ | .06 |
| 60-62 400 | .06 | .06⅛ |
| 61-63 390 | .06⅛ | .06¼ |
| 64-66 375 | .06¼ | .06⅜ |

**LOS ANGELES—**

| | | |
|---|---|---|
| U. S. Motor grades: | | |
| 53-55 octane | | .04¾ |
| 55-65 octane | .04¾ | .05 |
| 65-67 octane | | .05 |
| 67-69 octane | | .05¼ |
| Above 69 octane | .05½ | .06 |

### KEROSENE

**GULF COAST—**

| | | |
|---|---|---|
| 41-43 prime white | .04⅞ | .05 |
| 41-43 water white | | .05 |
| 44 water white | .05 | .05⅛ |

**LOS ANGELES—**

| | | |
|---|---|---|
| 41-43 water white | .04½ | .05 |

### LUBRICANTS

(Pennsylvania Grade)

**NEW YORK (f.o.s. in bbls.)—**

| | | |
|---|---|---|
| Cylinder Stocks: | | |
| 600 Warren E | .26½ | .27 |
| 600 S.R. unfiltered | .24 | .24½ |
| 630 S.R. unfiltered | .25½ | .26 |
| 600 flash, S.R. | .26½ | .27 |
| 630 flash, S.R. | .31½ | .32 |
| Bright Stocks: | | |
| 8 color | .32 | .32½ |
| 6½ plus color in dilution | .31½ | .32 |

### NEUTRAL OIL

| | | |
|---|---|---|
| 200-3 color | .34 | .34½ |
| 150-3 color | .29½ | .30 |

### PARAFFIN WAX

**NEW YORK (prices per pound)—**

| | |
|---|---|
| 123-126 a.m.p. | .04125 |
| 125-127 a.m.p. | .0425 |
| 128-130 a.m.p. | .0450 |
| 133-135 a.m.p. | .0525 |
| 135-137 a.m.p. | .0550 |
| Crude scale: | |
| 124-126 w.s. | .0260 .0270 |
| 124-126 y.s. | .0245 .0250 |

# CRUDE OIL PRICES

## Oklahoma, Kansas, North Central and East Central Texas

(January 28, 1937)

| | |
|---|---|
| East Texas (May 22, 1937)* | $1.35 |
| Van, Tex.† | 1.10 |
| Camp Hill, Tex. | 1.27 |
| Cass County, Tex.‡ | 1.25 |
| Talco | .73 |
| Altus and Tipton, Okla.§ | 1.20 |

Other fields (see gravity table).

*All companies. †Humble Oil & Refining Co.; Pure Oil Co. ‡Texas Co. §Gulf Oil Co. Talco by Humble Oil & Refining Co.

## West Texas

See gravity table.

| | |
|---|---|
| Pecos County* | .91 |
| Pecos shallow† | .81 |

*Shell Petroleum Co., Gulf Pipe Line Co., and Humble Oil & Refining Co. †Shell Petroleum Corp.

## Gulf Coast

(January 28, 1937)

| | |
|---|---|
| Choctaw and Darrow, La. | See note below |
| Clay Creek, Tex. | $1.00 |
| Garden Island, La. | 1.37 |
| Cleveland, Tex. | 1.27 |
| Hardin, Tex. | 1.15 |
| Tomball, Tex. | 1.30 |
| Lafitte, La. | 1.24 |
| Livingston, Tex. | 1.27 |
| Satsuma | 1.20 |
| Heyser, light (Nov. 1, 1936) | 1.15 |
| Heyser, heavy (Nov. 1, 1936) | .90 |
| Placedo (Nov. 1, 1936) | .90 |
| Welsh, La. | .98 |
| Tepetate (La.) (Jan. 4, 1937) | 1.12 |

Greta, Refugio, O'Connor, McFadden, Saxet, Segno, Taft, Tomoconnor and Plymouth take same gravity prices as Gulf Coast, Duval, Jim Hogg, Webb and Zapata counties, Texas, and Heyser and Placedo fields take Mirando gravity prices. Jennings, La., 5 cents lower than Gulf Coast prices on each degree. Segno, Texas, takes Gulf Refining Co.'s Gulf Coast prices. Choctaw and Darrow, Louisiana, posted for first time by Standard Oil Co. of Louisiana, start below 21 degrees at 90 cents, with 3-cent differential up to 25 gravity, then 2-cent differential up to 40 and above, $1.36.

## Rocky Mountain States

(Effective January 28, 1937)

| | |
|---|---|
| Iles, Colo., light* | $1.18 |
| Iles, Colo., heavy* | 1.12 |
| Greybull, Wyo.* | 1.30 |
| Torchlight, Wyo.* | 1.30 |
| Grass Creek, Wyo., light.*† | 1.30 |
| Grass Creek, Wyo., heavy (Nov. 4, 1936)*† | .62 |
| Hamilton Dome, Wyo. (Nov. 4, 1936)* | .57 |
| Elk Basin, Wyo., light*† | 1.30 |
| Frannie, Wyo., heavy* | .62 |
| Frannie, Wyo., light | .82 |
| Hogback, N. Mex.* | 1.33 |
| Pondera, Mont. (Jan. 26, 1936)* | 1.05 |
| Salt Creek, Dutton Creek and Midway, Wyo., take Stanolind's Oklahoma prices on a gravity basis. | |
| Big Muddy, Wyo.† | 1.23 |
| Rock Creek, Wyo.† | 1.20½ |
| Lea County, N. M. (see West Texas gravity table). | |
| Artesia, N. Mex. | .90 |
| Maljamar, N. Mex. | .90 |
| Canon City and Florence, Colo. | 1.10 |
| Florence, Colo. | .98 |
| Lance Creek, Wyo. | .97 |
| Sunburst, Mont. (June 5, 1936) | 1.20 |
| Cat Creek, Mont. | 1.40 |
| Cut Bank, Mont. | 1.35 |

*Stanolind Oil & Gas Co. †Ohio Oil Co. ‡Continental Oil Co. Cut Bank by Toronto Pipe Line Co.

## Middle Western States

OHIO OIL CO.

(Effective January 28, 1937)

| | |
|---|---|
| Lima | 1.25 |
| Illinois | 1.35 |
| Princeton, Ind. | 1.35 |
| Midland, Mich. | 1.42 |
| West Branch, Mich. | 1.26 |
| Buckeye (March 16, 1937) | 1.39½ |
| Arenac, Mich. | 1.28 |
| Muskegon, Mich. | 1.00 |

Eastern Kentucky:

| | |
|---|---|
| Big Sandy River | 1.42 |
| Kentucky River | 1.50 |
| Western Kentucky | 1.40 |

Midland, Mich., price posted by Simrall Corp. and Pure Oil Co. includes Greendale, Porter, Beaverton, Crystal and equal grades. West Branch and Arenac by Simrall Corp., effective January 29. Eastern Kentucky crude purchased by Ashland Refining Co., Ashland, Ky. Buckeye posted by Simrall Corp. and Pure Oil Co.

## Southwest Texas

(January 28, 1937)

| | |
|---|---|
| Pettus | 1.37 |
| Salt Flat, Darst Creek, Hilbig, Carroll Clark, Zoboroski | 1.09 |
| Luling | 1.00 |
| Lytton Springs | 1.12 |

Saxet and Taft take same gravity table as Gulf Coast.

## North Louisiana and Arkansas

| | |
|---|---|
| Smackover, all grades | $ .90 |
| Tullos and Urania | 1.02 |
| El Dorado East field | .90 |
| Union County, Ark. | .80 |
| Ouachita County, Ark. | .90 |

## Eastern States

TIDE WATER PIPE LINE CO.

(Effective June 7, 1937)

| | |
|---|---|
| Bradford, Pa. | $2.82 |
| Allegany, N. Y. | 2.82 |

SOUTH PENN OIL CO.

(Effective June 7, 1937)

| | |
|---|---|
| Pennsylvania Grade Oil in National Transit Lines (Bradford field) | 2.82 |
| Pennsylvania Grade Oil in Southwest Pennsylvania Lines | 2.57 |
| Pennsylvania Grade Oil in Eureka Pipe Line lines | 2.52 |
| Pennsylvania Grade Oil in Buckeye Pipe Line lines | 2.37 |
| Corning Grade Oil in Buckeye Pipe Line Co.'s lines (Jan. 29, 1937) | 1.42 |

PENNZOIL CO.

(Effective June 7, 1937)

| | |
|---|---|
| Pennsylvania Grade Oil in National Transit Lines: | |
| Group A | 2.82 |
| Includes Cochran, Franklin, Hamilton and Doolittle districts. | |
| Group B | 2.81 |
| Includes Tidioute district. | |
| Group C | 2.80 |
| Includes Turkey and Tidioute districts. | |
| Group D | 2.79 |
| Includes Bear Creek and Porkey districts. | |
| Group E | 2.76 |
| Includes Eldeneau, Bull Creek, Rough Run, Carbon, Dipner, Bredlin, McJunkin, Jameson, Kenerdell, Emienton, Tiona, Lacey and Kinzua districts. | |

Price depends on lengths of pipe line haul to plant at Oil City.

PURE OIL CO.

(Effective June 7, 1937)

| | |
|---|---|
| Cabin Creek, W. Va. | 2.52 |
| Bradford Hollow, W. Va. | 2.52 |
| Kelly Creek, W. Va. | 2.52 |

## Canada

| | |
|---|---|
| Ontario (Sept. 9, 1933)* | |
| Petrolia | $2.10 |
| Oil Springs | 2.17 |
| Turner Valley, Alberta province (Dec. 16, 1936):† | |
| Clear naphtha | $2.60 |
| Discolored naphtha, 65 gravity and higher | 2.36 |
| Discolored naphtha and crude oil, 40-40.9 gravity | 1.86 |
| Increasing 3 cents for each degree of gravity with top price for 64-64.9 gravity | 2.27 |

These prices delivered field tankage.
*Imperial Oil, Ltd.
†Imperial Oil, Ltd., and Regal Oil & Refining Co. On crude oil alone British American Oil Co. posted above prices on December 9, 1936.

## Mexico

| | |
|---|---|
| Panuco* | $1.34 |

*In U. S. currency, f.o.b. ship, based on April spot market transactions.

## Rocky Mountain Runs

Estimated daily average production for week ending June 26 follows:

| | Bbls. |
|---|---|
| **WYOMING** | |
| Salt Creek | 16,210 |
| Big Muddy | 1,380 |
| Badger Basin | 210 |
| Dallas Derby | 560 |
| Elk Basin | 440 |
| Frannie | 1,020 |
| Garland | 2,970 |
| Grass Creek | 1,640 |
| Hamilton dome | 1,060 |
| Hidden dome | 360 |
| Hudson | 260 |
| LaBarge | 990 |
| Lance Creek | 11,120 |
| Lost Soldier | 1,240 |
| Medicine Bow | 3,080 |
| Oregon Basin | 2,550 |
| Osage | 890 |
| Quealy dome | 800 |
| Rock River | 1,190 |
| South Casper | 460 |
| Poison Spider | 290 |
| Waugh dome | 270 |
| Miscellaneous | 450 |
| Total Wyoming | 49,440 |
| **MONTANA** | |
| Border | 180 |
| Cat Creek | 650 |
| Cut Bank | 10,310 |
| Dry Creek | 30 |
| Kevin Sunburst | 4,990 |
| Lake Basin | 20 |
| Pondera | 1,260 |
| Total Montana | 17,440 |
| **COLORADO** | |
| Florence | 150 |
| Fort Collins and Wellington | 260 |
| Iles dome | 2,570 |
| Moffat | 390 |
| Orchard | 20 |
| Rangely | 80 |
| Tow Creek | 150 |
| Price | 780 |
| Total Colorado | 4,400 |
| **NEW MEXICO** | |
| Cooper | 6,600 |
| Eaves | 1,160 |
| Eunice | 31,850 |
| Hardy | 1,140 |
| Hobbs | 21,160 |
| Jal | 1,230 |
| Langlie | 1,680 |
| Lynch | 850 |
| Lynn | 270 |
| Mattix | 1,490 |
| Monument | 33,800 |
| North Lynch | 60 |
| Penrose | 2,430 |
| Rhoades | 60 |
| Skelly | 1,170 |
| South Eunice | 1,500 |
| Vacuum | 10 |
| Artesia Maljamar | 6,810 |
| Getty | 200 |
| Hogback | 200 |
| Rattlesnake | 820 |
| Table Mesa | 90 |
| Total New Mexico | 114,580 |
| Total Rocky Mountain region | 185,860 |

# Crude Prices by Gravities

| | 1 Oklahoma-Kansas | 2 Oklahoma-Kansas | 3 North and Central Texas | 4 East Central Texas (Mexia district) | 5 North Louisiana-Arkansas | 6 Gray County, Texas | 7 Hutchinson-Carson counties, Texas | 8 Rodessa, Louisiana-Texas and Panola County, Texas | 9 Conroe, Tomball, Raccoon Bend, Satsuma, Texas | 10 Gulf Coast | 11 Gulf Coast | 12 West Texas except Pecos County, Lea County, N. Mex. | 13 Mirando district, Texas | 14 Marion County, Texas | 15 Government Wells, Texas | 16 Anahuac, Texas | 17 White Castle, Louisiana | 18 Iowa, Louisiana | 19 Cayuga, Texas |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bel. 18 | .... | .... | .... | .... | .... | .... | .... | .... | .... | $.90 | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 18-18.9 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .92 | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 19-19.9 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .94 | .... | .... | .... | .... | .... | .92 | $.94 | $.84 | .... |
| 20-20.9 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .96 | $.95 | .... | $.90 | .... | $.90 | .94 | .96 | .86 | .... |
| 21-21.9 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .98 | .98 | .... | .93 | .... | .93 | .96 | .98 | .88 | .... |
| 22-22.9 | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1.01 | 1.01 | .... | .96 | .... | .96 | .98 | 1.01 | .91 | .... |
| 23-23.9 | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1.04 | 1.04 | .... | .99 | .... | .99 | 1.00 | 1.04 | .94 | .... |
| 24-24.9 | .... | .... | .... | .... | .... | .... | .... | .... | .... | 1.07 | 1.07 | .... | 1.02 | .... | 1.02 | 1.02 | 1.07 | .97 | .... |
| Bel. 25 | .... | $.98 | .... | .... | $.90 | .... | .... | $.93 | .... | .... | .... | .... | .... | $.90 | .... | .... | .... | .... | $.88 |
| 25-25.9 | .... | 1.00 | .... | .... | .92 | .... | .... | .95 | .... | 1.10 | 1.10 | $.78 | 1.05 | .92 | .... | 1.04 | 1.10 | .99 | .90 |
| 26-26.9 | .... | 1.02 | .... | .... | .94 | .... | .... | .97 | .... | 1.13 | 1.13 | .80 | 1.08 | .94 | .... | 1.06 | 1.13 | 1.03 | .92 |
| 27-27.9 | .... | 1.04 | .... | .... | .96 | .... | .... | .99 | .... | 1.15 | 1.15 | .82 | 1.10 | .96 | .... | 1.08 | 1.15 | 1.05 | .94 |
| 28-28.9 | .... | 1.06 | .... | .... | .98 | .... | .... | 1.01 | .... | 1.17 | 1.17 | .84 | 1.12 | .98 | .... | 1.10 | 1.17 | 1.07 | .96 |
| Bel. 29 | $1.06 | .... | $.96 | $1.03 | .... | .... | .... | .... | $1.20 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 29-29.9 | 1.08 | 1.08 | .98 | 1.05 | 1.00 | .... | .... | 1.03 | 1.22 | 1.19 | 1.19 | .86 | 1.14 | 1.00 | .... | 1.12 | 1.19 | 1.09 | .98 |
| 30-30.9 | 1.10 | 1.10 | 1.00 | 1.07 | 1.02 | .... | .... | 1.05 | 1.24 | 1.21 | 1.21 | .88 | 1.16 | 1.02 | .... | 1.14 | 1.21 | 1 11 | 1.00 |
| 31-31.9 | 1.12 | 1.12 | 1.02 | 1.09 | 1.04 | .... | .... | 1.07 | 1.26 | 1.23 | 1.23 | .90 | 1.18 | 1.04 | .... | 1 16 | 1.23 | 1 13 | 1.02 |
| 32-32.9 | 1.14 | 1.14 | 1.04 | 1.11 | 1.06 | .... | .... | 1.09 | 1.28 | 1.25 | 1.25 | .92 | 1.20 | 1.06 | .... | 1.18 | 1.25 | 1.15 | 1 04 |
| 33-33.9 | 1.16 | 1.16 | 1.06 | 1.13 | 1.08 | .... | .... | 1.11 | 1.30 | 1.27 | 1.27 | .94 | 1.22 | 1.08 | .... | 1.20 | 1.27 | 1.17 | 1.06 |
| 34-34.9 | 1.18 | 1.18 | 1.08 | 1.15 | 1.10 | .... | .... | 1.13 | 1.32 | 1.29 | 1.29 | .96 | 1.24 | 1.10 | .... | 1.22 | 1.29 | 1.19 | 1.08 |
| Bel. 35 | .... | .... | .... | .... | .... | $.96 | $.91 | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... | .... |
| 35-35.9 | 1.20 | 1.20 | 1.10 | 1.17 | 1.12 | .98 | .93 | 1.15 | 1.34 | .... | 1.31 | .98 | 1.26 | 1.12 | .... | 1.24 | .... | 1.10 | .... |
| 36-36.9 | 1.22 | 1.22 | 1.12 | 1.19 | 1.13 | 1.00 | .95 | 1.17 | 1.36 | .... | 1.33 | 1.00 | 1.28 | 1.14 | .... | 1.26 | .... | .... | .... |
| 37-37.9 | 1.24 | 1.24 | 1.14 | 1.21 | 1.16 | 1.02 | .97 | 1.19 | 1.38 | .... | 1.35 | 1.02 | 1 30 | 1.16 | .... | 1.28 | .... | .... | .... |
| 38-38.9 | 1.26 | 1.26 | 1.16 | 1.23 | 1.18 | 1.04 | .99 | 1.21 | 1.40 | .... | 1.37 | 1.04 | 1.32 | 1.18 | .... | 1.30 | .... | .... | .... |
| 39-39.9 | 1.28 | 1.28 | 1.18 | 1.25 | 1.20 | 1.06 | 1.01 | 1.23 | 1.42 | .... | 1.39 | 1.06 | 1.34 | 1.20 | .... | 1.32 | .... | .... | .... |
| 40,over | 1.30 | 1.30 | 1.20 | 1.27 | 1.22 | 1.08 | 1.03 | 1.25 | 1.44 | .... | 1.41 | 1.08 | 1.36 | 1.22 | .... | 1.34 | .... | .... | .... |

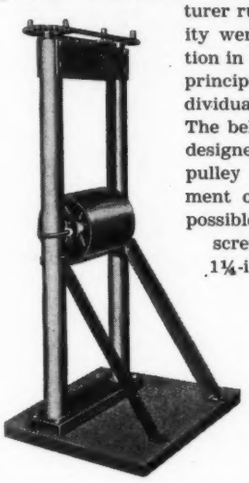
Column 1—Companies posting are Barnsdall, Bell, Champlin, Continental, Cushing, Derby, Dickey, Eason, El Dorado, Empire, Falcon, Globe, Gulf, Johnson, Kanotex, National, Phillips, White Eagle, Stanolind, Sunray, Texas, Sun, Vickers and Wilcox.
Column 2—Anderson & Prichard, Carter, Cosco, Deep Rock, Magnolia, Mid-Continent, Pure, Rock Island, Shell, Sinclair, Skelly and Tide Water.
Column 3—All purchasers.
Column 4—Humble Oil & Refining Co. and Sinclair Crude Oil Purchasing Co.
Columns, 5, 6, 7 and 8—All purchasers.
Column 9—Humble Oil & Refining Co. and Sun Oil Co. Tide Water Oil Co.'s schedule starts at 35 degrees, $1.34 with 2-cent spread up to 40 and over at $1.44. (Raccoon Bend prices are for deep sand oil.)
Column 10—The Texas Co. (Gulf Refining Co. pays same prices up to and including 34 gravity, but continues its 2-cent spread up to 40 and over at $1.41.)
Column 11—Humble Oil & Refining Co., Sinclair Prairie Oil Marketing Co., Sun Oil Co.
Column 12—All purchasers.
Column 13—Humble Oil & Refining Co.
Column 14—Magnolia Petroleum Co.
Column 15—Sun Oil Co.
Column 16—Gulf Refining Co.
Columns 17 and 18—Shell Petroleum Corp.
Column 19—Tide Water Oil Co.

A. O. Woll, director of the General Petroleum Corporation in charge of maritime operations, is to give an address before the twenty-sixth national safety congress and exposition, marine section, in Kansas City, Mo. He will discuss a plan to create keener interest among seamen in prevention of accidents.

# NEW OR IMPROVED EQUIPMENT

## Ruggedness and Flexibility Are Features of Belt Tightener

The Surface Equipment Co., Inc., 524 North Trenton Avenue, Tulsa, announces the Seco improved belt tightener. According to the manufacturer ruggedness and flexibility were of prime consideration in designing the unit. Its principal application is for individual well pumping units. The belt tightener or idler is designed to allow 30 inches pulley travel. Rapid adjustment of the pulley is made possible as the coupled lifting screws are provided with 1¼-inch Acme threads. The 14- by 16-inch cast-iron pulleys are statically and dynamically balanced and are set in two heavy-duty roller bearings. Ample strength for the heaviest loads has been provided for through the use of an extra-heavy pipe frame. The weight of the entire unit is 470 pounds.



## New Type First-Aid Kit

A new type first-aid kit designed especially for industrial use, has been developed by the Davis Emergency Equipment Co., New York. A special feature of the Brac-Kit is that the kit containing the first-aid supplies is firmly locked, with a dust-proof and waterproof seal, in an outer case, which can be permanently mounted in any convenient location. This permits the kits to be located at various points in plants, offices, and warehouses, on service trucks and buses, and other places where first-aid may be needed. If an accident happens, no time is lost hunting for first-aid supplies.

## Bulletins, Booklets and Other Literature for the Trade

Baker Oil Tools, Inc., Huntington Park, Calif., is sending to those who ask for it a 12-page bulletin on the Baker model F cement-retainer. Construction and operation of the device are explained.

Laminum precision-adjustment shims, with which adjustments are made by peeling off laminations, are the subject of a 16-page illustrated booklet obtainable from the Laminated Shim Co., Inc., 21-24 Forty-fourth Avenue, Long Island City, N. Y.

Pictures of the lost well of Maracaibo, with descriptive test, are among interesting features of the latest number of the Lufkin Line, published by the Lufkin Foundry & Machine Co., Lufkin, Tex.

A complete description of the new model 120 ditcher is given in a bulletin which may be obtained by writing to the Buckeye Traction Ditcher Co., Findlay, Ohio.

Goulds Pumps, Inc., Seneca Falls, N. Y., announces an 80-page catalog covering centrifugal, reciprocating and rotary pumps for industrial service. Each pump is presented completely with description, illustrations, specification and ratings.

The Pictorial of Welding Progress is an eight-page photo review by the Lincoln Electric Co., Cleveland, Ohio, of advances made in arc welding.

Information concerning Butler bolted tanks and Butler steel buildings for the oil field is presented in a four-page bulletin offered by the Butler Manufacturing Co., Thirteenth Street and Eastern Avenue, Kansas City, Mo.

Pamphlet No. 8, offered by the Pennsylvania Salt Manufacturing Co., Widener Building, Philadelphia Pa., is devoted to Penchlor Asplit cement, for use in oil refineries, steel mills, chemical plants, etc.

A request on company stationery to the Ohio Injector Co., Wadsworth, Ohio, brings a 12-page booklet containing charted comparisons of OIC catalog figure numbers with those of other manufacturers.

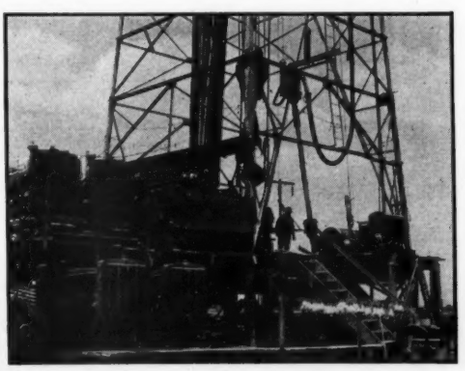
The Lewis Bros. Co., 303 South Frankfort Avenue, Tulsa, distributor for the Muskogee Iron Works model B-1 pipe-laying boom, has issued a 4-page illustrated bulletin giving information about that device.

A 12-page booklet describing and illustrating J-M corrugated Transite, an absestos-cement composition that is incombustible, weather-proof and highly resistant to corrosion, is available from Johns-Manville, 22 East Fortieth Street, New York.

## Monsanto Plant Operating

Power has been turned on the first electric furnace at the Monsanto Chemical Co.'s new phosphorus plant in Monsanto, Tenn., and, according to company officials, is operating satisfactorily. The second and third furnaces are scheduled to begin production early this month. These furnaces have the largest capacity of any yet constructed in this country. The company has invested in excess of $3,000,000 in the plant.

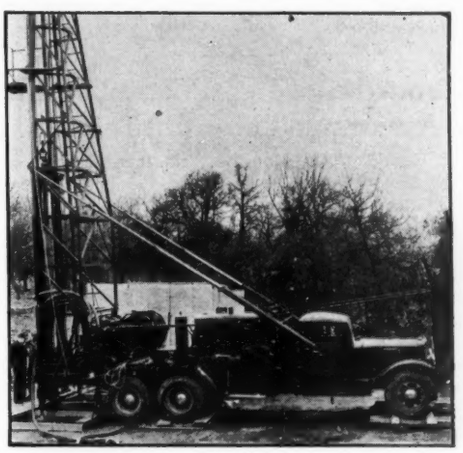
✦



***Two "Caterpillar" D17000 diesel engines driving through Dodge clutch to drawworks and rotary table; also driving 18-inch Wilson-Snyder mudpump. Two "Caterpillar" D13000 diesel engines driving 16-inch Wilson-Snyder mudpump. All four engines consume a total of about 300 gallons of 6-cent fuel per 24-hour day. Hole at 2,800 feet, with oil expected at 7,000 feet***

## Coring and Production Drilling Done With Franks Machine

The new self-contained core drill and portable rotary with hydraulic feed, designed and built by the Franks Manufacturing Corp., of Tulsa, for exploration drilling, cores down to 4,000 feet and does production drilling to 3,000 feet. The unit is used also for drilling input water wells for flooding and repressuring. There are two models. Model 3000 is for coring to a maximum depth of 3,000 feet and drilling to 2,500 feet. Model 3000-A goes to 4,000 and 3,000 feet respectively.



The unit is complete with derrick mast, rotary table, hydraulic feed with Franks patented thrust head arrangement, two slush pumps and hydraulic pressure pump, drawworks and independent power plant all mounted and unitized on one truck. From the grass roots down the machine is driven as a regular rotary drilling unit with facilities afforded for hydraulic feed through hard surface formations. After depth sufficient for weight feeding is reached hydraulics retract out of the way.

The rotary table is fully enclosed, running in oil. The kelly drives drill pipe direct through a patented positive drive and in coming out of the hole the kelly and swivel break out with first stand of drill pipe. Seamless steel tubing is used in the derrick mast.

## Bruce Gold Joins Atlas

The Atlas Supply Co. has appointed Bruce E. Gold, formerly with the service department of the Caterpillar Tractor Co., sales engineer, with headquarters in Tulsa. Mr. Gold's appointment broadens the scope of the engineering service offered by Atlas, and his activities will include special service to all of the company's branch stores and offices and to their customers. Before his connection with Caterpillar Mr. Gold spent 12 years with the Weber Engine Co., Kansas City, Mo., where he was assistant chief engineer from 1930 to 1936. Atlas is distributor for the Weber Engine Co. and Mr. Gold's experience in the design and manufacture of oil-field engines and related machinery will be distinctly useful.

## No Building Needed by Totally Enclosed Fan-Cooled Motor

Installed on the oil pump line at the Rose pumping station of the General Petroleum Corp. near Bakersfield, Calif., these 200-horsepower, 3,500-R.P.M., totally enclosed, fan-cooled Westinghouse

motors with cast-iron frame require no enclosing building. Frame construction is of the heat-exchanger type.

## Program of Plant Expansion Is Announced by Hunt Tool Co.

Hunt Tool Co., Houston, Tex., manufacturer of the Hunt wireline core-barrel and a complete line of oil-well drilling-bits, is the successor to Authorized Appleman Bit Service Co., the change in name follows the increase in capitalization from $20,000 to $100,000 and adoption of a wide expansion program. The new Houston headquarters of Hunt Tool Co. has undergone a program of shop and office enlargement which approximately doubled the size of the plant. A branch office and shop in Jennings, La., recently opened to South Louisiana trade in addition to the Houma shop, is equipped to do practically every class of core-barrel, bit and general oil-field repair work that is possible in the large headquarters plant.

*T. N. HUNT*

*U. V. SEALES*

Officers of Hunt Tool Co. are T. N. Hunt, president; P. M. Hunt, vice president; U. V. Seales, secretary-treasurer. The company has grown in five years from a small bit shop employing less than a dozen men to a personnel of 110 employes.

Field branches are operated in Joinerville, Talco, Corpus Christi, Bay City and Alvin, Tex., and Rodessa, Jennings and Houma, La. The company operates more than 35 service trucks and cars in the fields.

## Here and There With Men Who Manufacture Equipment

Ralph W. Marshall, formerly with the Oil Well Supply Co. in Los Angeles, is now vice president of the Drilling and Exploration Co., Inc., with offices in the same city.

Edward L. Morgan, of the International Derrick & Equipment Co.'s New York export office, is visiting headquarters in Columbus, Ohio, and Eastern fields. He will return to New York in the late summer.

The Mid-Continent Supply Co., Mid-Continent Building, Fort Worth, Tex., has opened two new stores, one in Seagraves, Gaines County, Texas, G. W. Walters, manager, and one in Monahans, Ward County, Texas, A. E. LeClaire, manager. Both are under the supervision of R. C. Tucker, district manager in Odessa, Tex.

C. H. Norton, formerly salesman for Mid-Continent Supply Co., has resigned to open the Petroleum Supply Co. in Shreveport, La.

W. A. Scott, formerly with the Star Drilling Machine Co., is now representing Lee C. Moore & Co., Inc., in the Mid-Continent, maintaining headquarters in Fort Worth, Tex.

The Roloff Engineering Co., 610 West Michigan Street, Milwaukee, Mis., has been appointed sales representative for the Ajax Flexible Coupling Co., Westfield, N. Y.

Kenneth Craver, of the Thornhill-Craver Co., Houston, Tex., manufacturer of Unibolt couplings, has returned from a 10-weeks business trip through South American oil countries. Traveling by steamer and plane, Mr. Craver visited the important fields in Trinidad, Venezuela, Brazil and Argentina.

## All Vacations at One Time

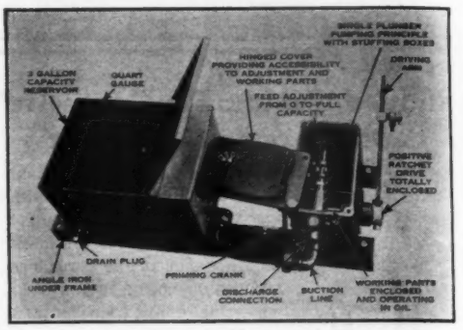
All employes of the Axelson Manufacturing Co., Los Angeles, will take their vacations at the same time this year. The plant will be closed July 4 to 10. A skeleton crew will make shipments from stock items. Field stores, warehouses, the general offices and branch offices will be open.

## Welding Awards Clarified

Dr. E. E. Dreese, chairman of the board of trustees of the James F. Lincoln Arc Welding Foundation, Cleveland, Ohio, has issued a statement to clarify the object of the foundation's 14 awards, totaling $10,500, for papers on containers (tanks, pipe lines, etc.), in its $200,000 series of awards. Dr. Dreese says a feeling apparently exists that only individuals familiar with the use of electric welding have an opportunity to participate. "I cannot emphasize too strongly," he says in his statement, "that the object is to encourage study and research of all container products. This means that those individuals accustomed to working with other structural processes can, with a little study, have equal opportunities with those who have had experience with arc welded construction."

## Pump Delivers Treating Agent Regardless of Temperature

Development of a new proportioning pump for feeding treating agents into crude oil in the flow-

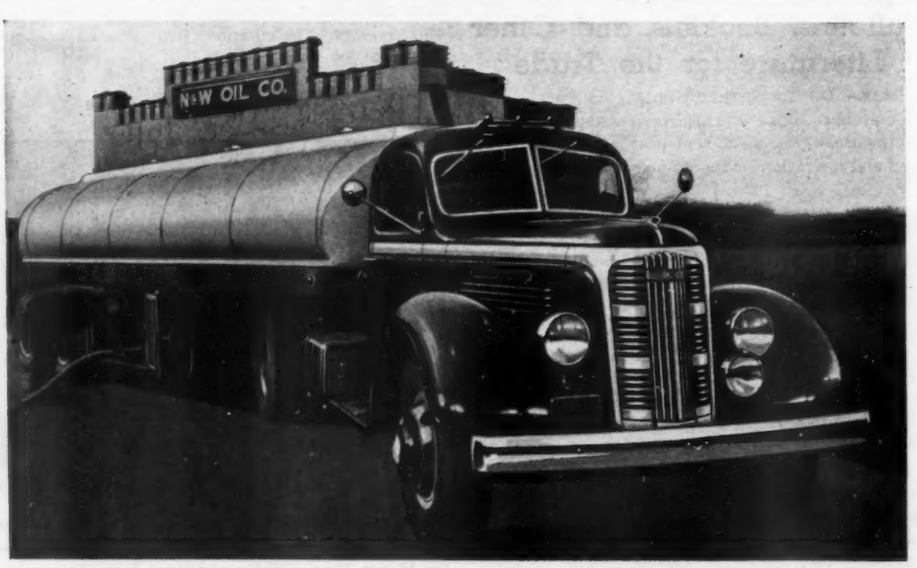

SINGLE PLUNGER PUMPING PRINCIPLE WITH STUFFING BOXES
3 GALLON CAPACITY RESERVOIR
QUART GAUGE
HINGED COVER PROVIDING ACCESSIBILITY TO ADJUSTMENT AND WORKING PARTS
DRIVING ARM
FEED ADJUSTMENT FROM 0 TO FULL CAPACITY
POSITIVE RATCHET DRIVE TOTALLY ENCLOSED
DRAIN PLUG
ANGLE IRON UNDER FRAME
PRIMING CRANK
DISCHARGE CONNECTION
SUCTION LINE
WORKING PARTS ENCLOSED AND OPERATING IN OIL

line from the well is announced by Hills-McCanna Co., Chicago. This pump is designed to deliver light or heavy chemical treating agents, regardless of temperature fluctuations. A properly treated crude acceptable to the pipe line is said to be assured.

One of the chief causes of nondelivery of chemical, when treating at the well, has been loss of suction. This resulted in a crude carrying suspended impurities which would get into the tank without treatment, ultimately affecting the gravity of the oil marketed. These suction losses were principally caused by congealment of chemicals due to low temperatures experienced during the night as well as during cold weather. To correct this condition, this new field pump has been provided with an enlarged suction, and special valve design. The manufacturer says it will function dependably, continuously and uninterruptedly, on a shorter stroke, and with heavier chemicals. Day or night, winter or summer, the pump is said to give the same uniform results by maintaining dosage. It affords a wide delivery range to meet the varying treating conditions each well presents. Complete protection of all working parts from the elements is another important feature.

"What's in a name?" asks the first cover page of a booklet distributed by Jenkins Bros., 80 White Street, New York. The 16 pages of text then explain what the name "Jenkins" means in a valve.

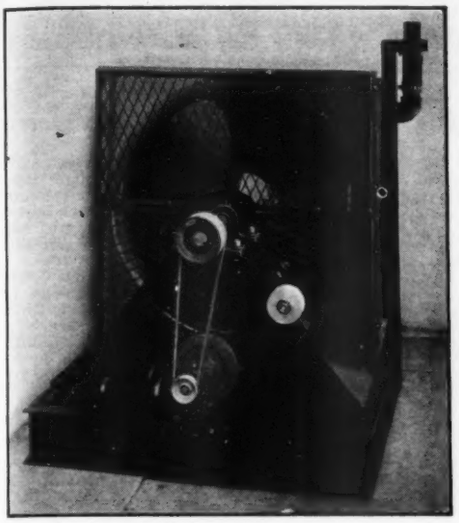
## GM UNIT USED BY OIL COMPANY FOR BULK HAULING




This deluxe unit used for bulk hauling from Chicago to Fort Wayne, Ind., was manufactured by the General Motors Truck & Coach Division of the Yellow Truck & Coach Manufacturing Co. It is a T-46B tractor. Equipped with 9.75/20 tires and a dual-ratio axle, it carries a tank with a capacity of 42,000 gallons. The unit is owned by the N & W Oil Co., Fort Wayne.

## New Engine-Cooler Is Designed to Give Maximum Efficiency

The Chas. J. Franks Co., 316 East Eleventh Street, Tulsa, manufacturer of industrial coolers, radiators and oil field equipment, is introducing



its new engine-cooler, designed to give maximum efficiency in cooling internal-combustion engines. The cooler is available in three sizes, with capacity for cooling engines ranging from 25 to 150 horsepower.

The radiators are made of copper and copper alloys, with tubes of double-lock seam construction withstanding 500 pounds pressure and specially treated to prevent corrosion. The power required to drive the radiator-fan and circulating-pump is approximately 2 horsepower. Average fan speed is 650 r.p.m. Heavy-duty self-aligning ball bearings are used throughout, and all equipment is of standard design, parts for which are readily available in oil field supply stores. The unit can be changed to run in a counter-clockwise direction at small additional cost. The company maintains a transportation department for field delivery direct from the factory.

## T. E. Sutter Sails for Paris

T. E. Sutter, vice president and general manager of Baker Oil Tools, Inc., Huntington Park, Calif., sailed June 2 on the Normandie to attend the World Petroleum Congress in Paris. He also will visit The Hague and points in Germany, Switzerland and the British Isles. He will contact various foreign representatives and clients of his company. Mr. Sutter is expected to return to the United States the latter part of August.

## Improved Model 'Rapiduction' Threading Machine Offered

The Oster Manufacturing Co., Cleveland, Ohio, has developed its improved model No. 915 single-spindle "Rapiduction" bolt-threading machine. The new model is built for high production on standard runs in bolt plants and for increased production on a wide variety of special work, a necessary part of the manufacturer's product. Its regular bolt range covers all sizes from ⅜-inch to 1½-inch at spindle speeds ranging from 49 to 298 R.P.M.

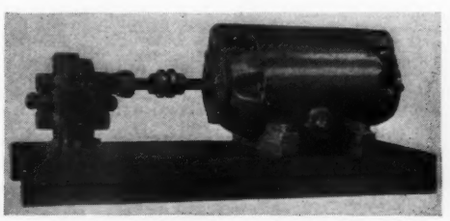
A spindle bore of 2⅛-inch and a vise adaptable to many different types of work-holders give the No. 915 almost unlimited possibilities for work of a special nature. Timken bearings are used throughout and the diehead is made of fine hardened and ground tool steel. All the dies are of high-speed steel. The spindle is made of high-carbon steel forgings, heat-treated and ground. The spindle is mounted on preloaded tapered roller bearings which are adjustable for long wear. Driving and change-speed gears are chrome-nickel steel, heat-treated and ground, and run in oil. The headstock shaft also is made from high-carbon steel, heat-treated and ground, and is mounted in tapered bearings, automatically lubricated and adjustable for wear. Semisteel makes up the vise-carriage. Guards cover moving parts of the machine that might cause injury.

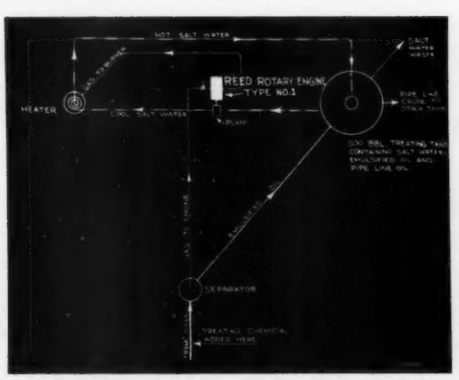
## Big Shipment for Venezuela

One of the largest single export shipments of oil-field equipment recently made from the Mid-Continent was made up of 12 big crates each containing a Gaso duplex piston power pump for oil pipe line service. The units were shipped to one of the leading oil companies operating in the oil fields of Venezuela, South America. Weight of the 12 crates totaled 55 tons. The pumps, known as Gaso Fig. 1740, are designed for gas-engine drive and are capable of pumping 6,000 bbls. each, per day, at a pressure of 650 pounds. The pumps, from raw materials to finished product were manufactured entirely in the Gaso Pump & Burner Manufacturing Co.'s Tulsa plant. The company takes extra precaution in connection with all products shipped abroad. After the pump is completely assembled and tested, it is taken down and every part is treated with a special corrosion preventative, to guard against damage from possible exposure to salt water or salt sea air. The pump is then reassembled and packed for shipment.

## Better Temperature Control of Treating System Is Gained

The Reed Roller Bit Co., Houston, Tex., has announced a new bronze-gear pump treating unit, which consists of a Reed rotary engine direct-con-

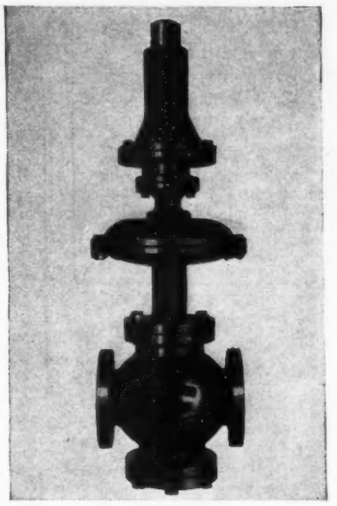





nected to a bronze-gear pump, mounted upon a metal base. This unit operates on gas pressure from the separator, driving the pump which circulates salt water from a treating-tank, through a heater back into the tank. The exhaust gas from the engine is burned under the heater. Therefore no gas is wasted. A more flexible control of the temperature of the treating system is claimed.

## Two Regulators Are Combined in One Appliance by N.G.E.

Natural Gas Equipment, Inc., 541 Petroleum Securities Building, Los Angeles, has developed a regulator for automatically firing oil-field boilers.



It is designed to provide closer control of steam pressure on drilling boilers and accurate regulation of the maximum and minimum gas pressure on the burner. The Boilertrol is a combined steam-control regulator and reducing valve. One regulator serves the purpose of both gas fuel regulator and reducing regulator for oil field boiler plants. Fuel supply pressure changes are automatically compensated for and have no effect on the operation of the regulator or the boilers.

The N.G.E. Boilertrol, owing to its pilot-operated construction, has a much greater usable capacity because it can open wide if necessary on a slight steam-pressure change. Not only has it a greater capacity, but also with the elimination of the second valve, such as a reducing valve, the available pressure drop is greater, which also makes for increased capacity.

The Boilertrol will maintain steam pressure within 3 pounds under extreme changes in load. The regulator is of the pressure-loaded type and will not surge, pulsate or override. With this pressure-loaded and pilot-operated construction, there are no stuffing-boxes. The diaphragms of the pilot, which are subjected to the steam pressure, are of monel metal, which precludes corrosion or breaking. The regulator actually controls the idling fire or minimum burner pressure. Only two adjustments can be made: (a) The steam pressure setting and (b) the maximum burner pressure adjustment.

## Wilson Adds Transformer-Type Arc Welder to Its Machines

A 150-ampere a.c. transformer-type arc welder has been added to the line of machines manufactured by the Wilson Welder and Metals Co., Inc., 60 East Forty-second Street, New York. With the addition of the new model, there are now available a.c. arc welders in capacities of 150, 300, 500, 750 and 1,000 amperes. All are complete and self-contained units and need no accessories, except the welding-cable, electrode-holder and hand-shield.

Recently redesigned, the entire line is constructed especially for rough shop usage. One of several distinctive features is a system of three controls or adjustments of the welding current. Through the medium of the first two controls it is possible to obtain 25 coarse adjustments. The third control offers a further and finer adjustment of current values within any one of the preceding 25. By means of these three controls an infinite number of settings may be obtained.

# CLASSIFIED ADVERTISING

### Patent Attorneys

**JACK A. SCHLEY**
**PATENT LAWYER**

Patents Obtained — infringement practice in all Courts—oil field experience. 1807-11 Tower Petroleum Bldg., Dallas. 2014 Second Nat'l. Bank Bldg., Houston. 707 Insurance Building, San Antonio. 433 Munsey Building, Washington, D. C. Address any of these offices.

REGISTERED PATENT ATTORNEYS
United States and Canada
Before disclosing your invention to any one, send for blank form:
"Evidence of Conception."
Instructions "How to Establish Your Rights" and complete information FREE!
LANCASTER, ALLWINE & ROMMEL
418 Bowen Building,
Washington, D. C.

PATENTS SECURED. Low cost. Reasonable Terms. 72-page book and advice free. Reg. Pat. Atty. L. F. Randolph, Dept. 748, Washington, D. C.

### For Sale—Maps

**SUCCESSFUL OIL OPERATORS**
Are Using
**ZINGERY OIL MAPS**
Our Up-to-Date Lease and Fee Ownership Maps of Counties and Combination Development Maps Save Time and Money.
**WRITE FOR DESCRIPTIVE FOLDER**
1937 Revised Edition Map of State of Texas, eastern N. M., parts of southern Okla., SW Ark. and La. shows Oil and Gas Fields in color, Counties and County seat and elevations, co-ordinated alphabetical index of fields and counties.
Price $1.00 postpaid
**ZINGERY OIL MAP COMPANY**
Fair Building Fort Worth, Texas

SOUTHWESTERN UNITED STATES
Includes all of following states: Texas, Louisiana, Mississippi, Arkansas, Oklahoma, Kansas, also Eastern New Mexico. Shows all oilfields by name and location. Alphabetically arranged list on margin of all discoveries these States during 1936. Lithographed. Size 3 x 4 ft. $1. Same map with pipe lines to date, white print with blue lines $7.50. Send for illustrated catalog describing 400 ownership and field maps in Texas and Louisiana.
ZINGERY MAP COMPANY
Houston, Texas

NEW 1936 OWNERSHIP MAP WOOD COUNTY, TEXAS; a map which we recommend for completeness and accuracy; scale 1"—1000 varas; east and west halves; price either half, on paper $7.50; on cloth $10.00.
RECENTLY REVISED OWNERSHIP MAP UNION COUNTY, ARKANSAS; scale 1"—3000 ft.; price on paper $15.00; on cloth $20.00; on roller $30.00.
**EBY ENGINEERING COMPANY**
**TYLER, TEXAS.**

### Financing

CAPITAL raised for development of oil and mining properties and financing of industrial propositions. Individual or corporation, $25,000.00 or more. Write us your requirements. Confidential. Address Box H-803, The Oil and Gas Journal, Tulsa, Okla.

CAPITAL raised for development of Oil and Mining properties. Delaware Charters. J. B. Murrow, 299 Broadway, New York.

WILL LOAN $25,000 or more for expansion producing or refining business. Low interest. Box 705, Jamestown, N. Y.

### Survey Service

Oil Operators: Eliminate chances of dusters; our GEOMAGNETIC Surveys positively determine if oil under any structure. Consultation invited. Brookfield Exploration Co., Milam Building, San Antonio, Tex.

### Oil Industry Printing

OIL FIELD LEGAL BLANKS
Leases, assignments, releases, township plat books, well records, etc. Request on your letterhead gets free catalog. Olds Press, 215 East Third St., Tulsa, Okla.

### Royalties—Production

## BUTLER COUNTY, KANSAS, ROYALTY

Interest for sale by drilling contractor.

Under 80-acre lease with well now drilling.

(Offset well has produced for past 3½ years).

A limited amount offered for the purpose of meeting drilling cost.
RECORDABLE ASSIGNMENT OF INTEREST TO BE MADE DIRECT TO PURCHASER.
1/240th Interest $200.00.
1/480th Interest $100.00.

**W. H. SCHWARTZ, DRILLING CONTRACTOR**
Residence 214 North Estelle Street. Wichita, Kansas.

### Addresses Wanted

WILL PAY CASH for names and addresses of production supts. and engineers. Box 2603, Tulsa, Oklahoma.

### Help Wanted

Graduate Mechanical Engineer, with refinery experience on material standardization, and specification preparation or writing, and material testing; location New York area, salary open. Send resume of business experience and photo to Box H-841, The Oil and Gas Journal, Tulsa, Okla.

WANTED—Experienced refinery draftsman. Send complete analysis of training and experience together with snap shot. Address Box H-851, The Oil and Gas Journal, Tulsa, Okla.

PRODUCTION DEPARTMENT MANAGER—Wanted by progressive organization, a man experienced in acquiring undeveloped and producing leases, and supervising their development and production. Knowledge of Texas and Louisiana fields particularly desirable. State experience in detail, age, and salary in last position. All replies will be treated confidentially. Address Box H-852, The Oil and Gas Journal, Tulsa, Okla.

WANTED—Experienced, competent and responsible tool pusher; preferably man pushing tools for a drilling contractor. "Has Beens" or ambitious drillers need not apply as must have man already engaged in pushing tools. Steady work and good salary assured. Applications should be mailed to Box H-850, The Oil and Gas Journal, Tulsa, Okla.

### Royalties—Production

Oil Royalties and Oil and Gas Leases
Bought and Sold
E. T. Marion
1109 Petroleum Building
Midland, Texas

### Situations Wanted

REFINERY SUPERINTENDENT AND ENGINEER, desires connection. Technically trained together with a successful record of fifteen years. Thoroughly experienced in the operation, maintenance, construction and design of all modern refining operations. Especially familiar with cracking operations. Capable of any refinery construction and training of personnel. Will consider any location domestic or foreign. Address Box H-842, The Oil and Gas Journal, Tulsa, Okla.

ACCOUNTANT-Bookkeeper wide oil accounting experience. Now available. Write Post Office Box 1502, Tulsa, Okla.

CHEMIST, Young, university graduate, training in chemical engineering, experience in a petroleum laboratory. Desires position in a refinery, mid-west preferred. Address Box H-856, The Oil and Gas Journal, Tulsa, Okla.

FIRST class plumber and general fitter. 28 years experience. Can lay out work. 44 years old and am married. Don't smoke or drink. Can go any where to work. Address Box H-854, The Oil and Gas Journal, Tulsa, Okla.

YOUNG Jewish lawyer, wide business and organization experience, desires to make connection in oil business. Address Box H-853, The Oil and Gas Journal, Tulsa, Okla.

## CLASSIFIED DISPLAY RATES

Classified Display is set with a border and may be used in one or two column sizes.

| | | |
|---|---|---|
| *1 Inch* | *1 time* | *$5.00* |
| *1 Inch* | *13 times* | *4.50 per inch* |
| *1 Inch* | *26 times* | *4.00 per inch* |
| *1 Inch* | *52 times* | *3.50 per inch* |

This space may be contracted for over a period of one year from the date of the first insertion and is PAYABLE IN ADVANCE, MONTHLY.

## CLASSIFIED

Classified advertising rates: First insertion, 35 cents a line; each additional insertion, 25 cents a line, PAYABLE IN ADVANCE. Six words usually make a line. Count as a word each one-letter word and each group of figures. White-space computed at regular line rate. Allow two extra lines for blind ads. Ads of less than three lines not accepted. No formal acknowledgement is made, and proofs cannot be shown in advance of publication.

| | 1 time | 2 times | 3 times | 4 times |
|---|---|---|---|---|
| *3 Lines* | *$1.05* | *$1.80* | *$2.55* | *$3.30* |
| *4 Lines* | *1.40* | *2.40* | *3.40* | *4.40* |
| *5 Lines* | *1.75* | *3.00* | *4.25* | *5.50* |
| *6 Lines* | *2.10* | *3.60* | *5.10* | *6.60* |

| | 1 time | 2 times | 3 times | 4 times |
|---|---|---|---|---|
| *7 Lines* | *$2.45* | *$4.20* | *$5.95* | *$7.70* |
| *8 Lines* | *2.80* | *4.80* | *6.80* | *8.80* |
| *9 Lines* | *3.15* | *5.40* | *7.65* | *9.90* |
| *10 Lines* | *3.50* | *6.00* | *8.50* | *11.00* |

We reserve the right to withhold all advertising of questionable character. To avoid delay be sure to send remittance with copy. We will set your ad in the smallest amount of space possible and refund all overpayments. One-time insertions will not be run until fully paid. Forms close MONDAY NOON before each issue date.

**THE OIL AND GAS JOURNAL**
Tulsa, Oklahoma

### Royalties—Production

## Brokers—Salesmen

Sell in the most active area in the United States—The Permian Basin of West Texas and Southeastern New Mexico. From the standpoint of royalty investors this area has much to offer. Can supply you with choice non-producing royalties located on geophysical highs. Also drilling blocks, close in acreage to production, or wildcat leases. I maintain my own field men who cover this area for me. All offerings meet the requirements of the Securities and Exchange Commission. Inquiries invited.

**B. D. BUCKLEY**
Paul Brown Bldg., St. Louis, Mo.

NEW MEXICO Oil and Gas Leases and royalties. Send 50 cents in stamps for new State Oil Map of New Mexico. Roy G. Barton, Clovis, New Mexico.

ANDREW J. BARRETT
The Philtower
Tulsa, Oklahoma.

HIGH GRADE producing oil and gas royalties offered to dealers. Billie Smallwood, P. O. Box 2261, Tulsa, Oklahoma.

**F. A. SANSOME**
Maintains a Complete Trading Organization for Brokers, Banks and Dealers
In
Oil Royalties
522 Fifth Avenue, New York, N. Y.

PERMIAN BASIN Royalties, fee lands, and leases, bought and sold. L. Wesley Read, Bush Building, Lubbock, Texas.

**ROYALTY RECORD.** Complete description of property, history of lease, plat, title record, rental record, mortgage record, expenditure record, sales record, tax record, well records and production record—all on one sheet. Printed on good ledger paper, size 11" by 8½", punched for standard ring binder. Price per 100 sheets, $5.00; leather ring binder, $4.00; imitation leather ring binder, $2.30; leather tabbed index to fit, $1.00. Order this indispensable record to-day.

**THE STECK COMPANY**
**217 W. 9th St., Austin, Texas**

WILL consider creating and selling some overriding royalty interests out our forty-three acre Terry Lease situated W ½ of W ½ Sec. 14, Township 20 South, Range 28 West, south Miller County, Arkansas which is south offset to McClanahan Capps Well. First well now drilling with five permits already issued. Come here in person and investigate. LAYTON OIL CO., Inc., Texarkana, Ark.

750 ROYALTY acres under St. Joseph Island, in Corpus Christi area. Leased to Gulf Oil Corporation. Price $6.00 per royalty acre. L. W. STIEREN, Alamo Bank Bldg., San Antonio, Texas.

ROYALTIES PURCHASING TRUST, LTD., Moorgate Hall, Moorgate London, E. C. 2., England, are buyers of producing oil royalties.

**PRODUCING OIL ROYALTIES**
15 years of experience
L. H. WITWER
214 Kennedy Bldg., Tulsa, Okla.

### Ranches and Farm Lands

THE WISE INVESTOR will buy good agriculture or grass land in fee at fraction of real value carrying all or part of oil rights where major companies are conducting intensive developing campaigns. A few close royalties for sale. Write SWEITZER, Eads, Colo.

## For Sale—Equipment

WELDERS A.C. and D.C. electric motor and engine driven. Reconditioned. Service Co., 3732 Cedar Ave., Cleveland, Ohio.

FOR SALE: 15—3' x 15' National Tank Company sand hogs—cheap. I. T. I. O., Bartlesville, Oklahoma.

FOR SALE: Several used reconditioned Hughes plunger lift units complete for use with 7" casing and 2⅜" OD or 2⅞" OD tubing. I. T. I. O., Bartlesville, Oklahoma.

25 K.W. and 40 K.W. Gas Engines, 220 volts, D.C. Two 100 K.W. Gas Engine-Generator Sets, 220 volts, D.C. 7x6 Ingersoll-Rand ER-1 Air compressor, Six-inch Oster Pipe Threading Machine. Also large stock of lathes, pipe machines, milling machines, etc. Send for our list.
Terms to suit.
CINCINNATI MACHINERY & SUPPLY CO.
26 West 2nd St. Cincinnati, Ohio

BOILERS—3-520 HP B&W WT. 200 lbs. with superheaters.
Feedwater heater and weigher, 250,000 lbs. per hour.
Evaporator system for above boilers, feed water.
Paul G. Bentley, Burt Bldg., Dallas

FOR SALE BARGAIN
Sullivan Core Drill Shop No. 3109-N complete with tools, bits and 2,000 feet of P. K. Drill Stem.
RAY WATERS
2-7672, 1114 Liberty Bank Bldg., Dallas, Tex.

FOR SALE: Two Cameron No. 5 six stage centrifugal pumps, one with 500 h.p. GE motor, 30,000 bbl. 24 hours, with 600 hp. GE motor, 35,000 bbl. 24 hours, synchronous motors with panel boards, good condition. MAX ZEIGLER & BROS., Muncie, Indiana.

DIRECTED
READER INTEREST
Your ad in these columns will be read by more oil-minded readers than in any other medium in the world. Direct your advertising to these readers through the regular use of this service.
THE OIL AND GAS JOURNAL
Tulsa, Oklahoma

LUBE PLANT
CENTRAL MID-CONTINENT AREA. Complete equipment for Asphalt or Paraffin Base Crude, with several types available. On R. R. siding. Address communications to Box H-801, The Oil and Gas Journal, Tulsa, Okla.

FOR SALE
Four enclosed moving vans and trucks. All equipped with air brakes. Operating under State wide permits. Phone 400 or write Box 401, Midland, Texas.

WRECKING
USED REFINERY MATERIAL FOR SALE
We have purchased the refinery of the Atlantic Refining Company at Pittsburgh, Pa., and will dismantle the same. We have for sale large quantities of pipe, valves, condensers and tanks of all sizes and description, cracking stills, belt conveyors, water towers and refinery equipment.
ROSEN WRECKING COMPANY
Atlantic Refining Plant
Butler Street
Pittsburgh, Pa.

FOR SALE: 6 class C-10 Sullivan pump heads with 15' stroke used in Oklahoma City operations. I. T. I. O., Bartlesville, Oklahoma.

2—200 HP Ingersoll-Rand horizontal duplex gas engine driven gas compressor units, 2 Stage Imperial Type 10 G. Also meters, pumps and sundry high and low pressure fittings, pipe and etc. at Saticoy Gasoline plant. M. J. Dwyer, 3790 S. Vermont Ave., Los Angeles, California.

FOR SALE: Two good Oilwell Supply Company electric pumping jacks, also complete wooden front and 25 & 30 HP Tico gas engines. Carl H. Browall, Box 1049, Ada, Oklahoma.

TANKS—Pressure: 5'x15', $100; 30"x18', $80; 3'x28', 500 lb. W.P., $300; Storage: 8'-7"x20', $250: 5'x27', $125. Heavy 4 cyl. air press, $100; 60 H.P. Oil Country boiler, $150; new 4" flues, $16. Box 26, Coffeyville, Kansas.

## For Sale—Equipment

# Steel Storage Tanks

50—Practically new 80,000-bbl. steel roof tanks, latest type.
125—55,000-bbl. storage tanks at great saving. Prices quoted on request for tanks standing, cut down, or reerected on your grade. Have all other sizes available. All tanks strictly guaranteed.
All kinds refinery equipment, valves, fittings, machinery, pumps and pump repair parts.
Wire—Phone—Write—W. C. Berry

**SONKEN-GALAMBA CORPORATION**
64 North Second St. Kansas City, Kansas

WELDERS BARGAINS—Demonstrators, reconditioned, new and used. 30 Days Trial and terms if desired. Write for list. Hobart Welder Exchange, Box OG-1, Troy, Ohio.

1—6' Cincinnati-Bickford Full Universal Motor Driven Radial Drill.
1—72" Swing Niles Motor Driven Radial Drill.
1—26"x12' L & S Engine Lathe.
1—20"x10' LeBlond Engine Lathe.
1—2½" capacity Acme Bolt Cutter.
1—300 Tons capacity Niles Hydraulic Wheel Press.
NOLAN SALES CORP., 404 East Second St., Tulsa, Okla. Phone 3-4897.

FOR SALE: One 300 HP 150-lb. pressure Hartford inspected Edgemore boiler. Height 10' 10", width 9' 8" with 9½" water leg, two 34" drums 149 4-inch flues 18' long. Also two 72 x 16 boilers 150-lb. pressure and one 125 HP 125-lb. pressure. All these boilers in good condition. Terminal Oil Mill Co., Oklahoma City, Okla.

TWO 250 H.P. Ray Oil Burners complete in good order. Albert W. Drennan, 503 Cherokee St., New Orleans.

FOR SALE: A large stock of McEvoy hand operated blowout preventers. I. T. I. O. Company, Bartlesville, Oklahoma.

## Equipment Wanted

WANTED—One K-Type Star Spudder, complete with tools, or alone. Give price and location. P. O. Box 314, Inola, Kansas.

WANTED—One 8x8 Ingersoll-Rand Air Compressor. Give price and location. P. O. Box 314, Iola, Kansas.

WANT Independent Refinery and Gasoline Absorption Plant to locate on Kansas City Southern Railway tracks and my property, Section 16, Township 20 South, Range 28 West, South Miller County, Arkansas, and handle production from both my Rodessa, Louisiana and Arkansas wells.
WILLIAM MONROE LAYTON
P. O. Box 411 Texarkana, Ark.

## For Sale or Rent

A COMPLETE 1200 bbl. capacity GASOLINE REFINERY located in Shreveport. Formerly operated as the Griswold Refinery or the Cedar Grove Refinery. Apply J. E. Slattery, 1022 Slattery Building. Office Phone 7564, Shreveport, La.

## Incorporations

CHARTERS — Delaware best, quickest, cheapest, more liberal. Free forms. Colonial Charter Co., Wilmington, Del.

DELAWARE CHARTERS: Complete service $35. Submitted forms. Chas. G. Guyer, Inc., Wilmington, Delaware.

## For Sale—Equipment

## Leases—Production

SW IND. and E. ILL. LaSalle basin structures. 40 a. lease near Carter deep test. 6 wells on 80 a. making 3000 bbls. mo. F. M. PIERSON, TERRE HAUTE, IND.

HELP! Best thousand on titanic cross anticlinal structure. Irvin and Williams, Burksville, Kentucky.

I OWN 480 acres in fee next to Sisne well in Wayne County, Illinois. Will make more liberal lease than any other owner. S. M. Homan. 7205 Exchange Ave., Chicago.

WILL trade 40 acre New Mexico oil lease for typewriter, good condition. William Field, S. 405 Maple, Spokane, Wash.

## NEW DISCOVERY!

2,500-foot test in northern JONES COUNTY . . . in line between Governor Marland-Drake test and new Rotan discovery gusher. Surface and sub-surface by Woodfin and Daily . . . separate reports highly commending structure. 5-year commercial leases . . . 1,200 feet to mile from well on tip-top structural contours . . . minimum, 20 acres at $15 per acre. Money held in escrow until well reaches contract depth or commercial oil discovered. A live play for reputable brokers and individuals. For details, map, etc. . . .

**Tuxedo Drilling Company**
Sinclair Bldg. Fort Worth, Texas

2400 ACRES ZAVALA COUNTY
Southwest of Wilcox well, 10 year lease, 50c rental, price $2.50 acre. 4,500 acres N.E. of Wilcox well along Medina and Frio County line, 10 year leases, $1.00 rentals, price $2.00 acre. L. W. STIEREN, Alamo Bank Bldg., San Antonio, Texas.

## Mailing Lists

ROYALTY OWNERS
Names and addresses in any State.
Royalty Lists, Box 105, Ft. Worth.

ROYALTY INVESTORS, by deed. Speculators in low priced leases. Both by states. Oil Industry Mailing List Co., Tulsa Loan Bldg., Tulsa, Okla.

## Leases—Production

NEW MEXICO—My weekly scout report furnishes complete and reliable information on New Mexico developments. Send for copy. W. S. Patterson, Santa Fe, New Mexico.

New Mexico OIL LEASES WHOLESALE
40 acres at a time.
Roy G. Barton, Clovis, New Mexico.

LEASES near Paluxy-Trinity sand Oklahoma Ordovician tests now drilling where there is chance for 50 to 1 return few weeks. E. CROFT, Proctor, Texas.

LANDS Leases, Royalties, anywhere, bought, sold. Lands, $2 acre up. Leases 25c acre, up. Advise needs. American Investment Co., Houston, Texas.

980 ACRES YOAKUM CO., TEXAS
OIL AND GAS LEASE for immediate sale, consisting of Sec. 596 and W½ Sec. 597 in active developmental sector. Submit maximum offer to owner. Dr. J. A. Robinson, National Military Home, Los Angeles, Cal.

LEASES and ROYALTIES
Kearny County, Kansas
BEYMER & BEYMER, Lakin, Kansas

AM ready to figure with you on your bargains in Lands in fee or any type of Oil properties to buy or sell. My thirty years in this business here enables me to know values large or small. E. B. REEVES, Box 475, McLean, Gray County, Texas.

WANTED: Stripper oil production or wells or leases that are ready for salvage. Address Box H-724, The Oil and Gas Journal, Tulsa, Oklahoma.

**N. M. SAULS, Geologist**
Specializing in the shallow Ky-Tenn field. Suitable acreage available at all times. Address:
Cookeville or Static, Tenn.

OIL and Gas Leases and Royalties, some producing and some near drilling wells. In the Permian Basin of West Texas and Lea County, New Mexico.
C. E. POYNOR
Naylor Hotel Building, San Angelo, Texas.

ARKANSAS
Does not have any production (proration) restrictions. The opportunity for quick "payouts" is obvious. Come here and investigate royalty and lease opportunities.
WILLIAM MONROE LAYTON
P. O. Box 411 Texarkana, Ark.

NEW MEXICO and COLO. LEASES against our developments. We have three under full operation. Diversified locations, fully geologized and recommended tests against semi proven production. VEGAS DOME . . San Miguel County, N. M.; OJO STRUCTURE . . Huerfano County, Colo.; ALAMO STRUCTURE . . Huerfano County, Colo. If you want to connect with real developments under full operation, financed and making good tests, write S. W. Pressey, Box 614, Pueblo, Colorado.

640 ACRE lease adjoins new Powder Wash well, Colo.-Wyo. line. $5 per acre. Also big drilling block $3 per acre. S. Marvin James, Univ. Bldg., Denver.

WANTED to buy Oil and Gas production in Ohio, West Virginia, Michigan and Kentucky. Write Lock Box 304, Barnesville, O.

60,000 ACRE TRACT for lease; also Lisbon leases, royalties. G. LUCAS, 208 Milam St., Shreveport, La.

Specializing leases twenty acres up dollar acre, East Tex., La., S. Ark. Owners—Attorney. Box 1122, Little Rock, Ark.

FOR SALE: 80 acres, 8 wells, 6 producing, 1 key well, 1 former key well now idle, 600 ft. deep in North Texas, averaging 20 bbls. daily. On large high. Price $1,000.00 per bbl. for net. Cash price. Address Box H-855, The Oil and Gas Journal, Tulsa, Okla.

PERMIAN Basin. Commercial leases, 10 years, producers, 50c rental, quarter section up, drilling blocks. Name county in which you desire to play. James T. Cumley, Wichita Falls, Texas.

SALE—Leases, Royalties, Illinois Basin. Would contract leases to driller. Small over right. W17. Elton Beck, Herrick, Illinois.

WANT to lease 820 acres and sell part royalty on property located in Sabine Parish, Louisiana, near Zwolle oil field on flank of Sabine uplift. Will make sacrifice price account mortgagor is threatening foreclosure. A. D. KING, 537 Ricou Brewster Bldg., Shreveport, La.

HAVE 120 acres offsetting Key pool. Sec. 25-31s-10e, Elk County, 3½ miles S.E. Moline, Kansas. Oswego 1650, Siliceous 2270. Will lease for $35.00 acre, one well and ¼ interest. E. B. Jaeger, Moline, Kansas.

# WHY WASTE TIME

**and money dickering around when you can reach your prospects through the medium they have chosen themselves?**

**An advertisement in these columns will place your message before the wealthiest and most progressive group of men in the world—*OIL MEN*—the readers of The Oil and Gas Journal.**

**Put the Journal on your payroll—make it a part of your sales force. It will outsell anything you have tried before.**

***Classified Department***

## The Oil and Gas Journal
**TULSA, OKLAHOMA**

# INDEX TO ADVERTISERS


### A

Abercrombie, J. S., Co.
Abercrombie Pump Co.
Aif-Maze Corp.
Air Reduction Sales Co.
Ajax Iron Works
Alco Products, Incorporated
Aldrich Pump Co., The
Allied Steel Products Corp.
Allis-Chalmers Mfg. Co.
Allsteel Products Mfg. Co., The
American Askania Corp.
American Cable Division of American Chain & Cable Co., Inc.
American Cast Iron Pipe Company
American Geophysical Co., The
American Hammered Piston Ring
American Iron & Machine Works
American Lubricator Company
American Manganese Steel Company
American Meter Company
American Roller Bearing Company
American Rolling Mill Co., The
American Sand-Banum Co., The 84
American Seismograph Company
American Steel & Wire Company
Appleton-Atlas Car Mover Corporation
Arrowhead Iron Works
Athey Truss Wheel Co.
Atlas Drop Forge Co. 88
Atlas Imperial Diesel Engine Co.
Atlas Supply Co.
Auer, C. L., and W. W.
Axelson Manufacturing Company

### B

Baash-Ross Tool Company
Babcock & Wilcox Tube Co., The
Badger & Sons Co., E. B.
Bakelite Corporation
Baker Oil Tools, Inc. 65
Baldwin-Southwark Corporation
Baroid Sales Company
Barret, William M., Inc. 88
Barrett Company, The
Beaumont Iron Works Co.
Bethlehem Steel Co.
Black, Sivalls & Bryson, Inc.
Boston Woven Hose & Rubber Co.
Braden Steel Corporation
Bradford Motor Works, Inc.
Brewster Company, The 65
Bridgeport Machine Company 39
Broderick & Bascom Rope Co.
Brown Instrument Co., The
Buckeye Traction Ditcher Co., The
Butler Manufacturing Co.
Bryon Jackson Co.

### C

Cameron Iron Works, Inc
Carey Company, The Philip
Carnegie-Illinois Steel Corporation
Carson Machine & Supply Co.
Case Company, J. I.
Cast Iron Pipe Research Association, The
Caterpillar Tractor Co.
Central Forging Co., The
Central Power and Light Company
Chain Belt Company
Chaplin-Fulton Mfg. Co., The 81
Chapman Valve Mfg. Co., The Inside Back Cover
Chemical Process Co., Inc., The
Chevrolet Motor Company
Chicago Bridge & Iron Company
Chiksan Oil Tool Co., Limited
Cities Service Oil Co. 71
Clark Brothers Company
Classified Advertising 110-111
Clayton Mfg. Co.
Cleveland Trencher Company, The
Climax Molybdenum Company
Columbian Steel Tank Co.
Consolidated Chemical Industries, Inc.
Continental Chemical Company
Continental National Bank of Fort Worth
Continental Oil Co.
Continental Supply Company, The 47
Cooper, Fred E.
Cooper-Bessemer Corp., The
Coppus Engineering Corp. 74
Crane Co. 1
Crane Packing Co.
Crutcher-Rolfs-Cummings, Inc.
Cummins Engine Company
Curtin, W. H., and Co., The

### D

Darling Valve & Mfg. Co.
Davis Regulator Co.
De Cavel & Roegiers
Dearborn Chemical Co.
De La Vergne Engine Co.
Demag
Devine, J. P., Mfg. Co., The
Dewey Portland Cement Co.
Diamond Chain & Mfg. Co.
Dickey Clay Mfg. Co., W. S.
Dodge—Division of Chrysler Corp.
Dodge Mfg. Corporation
Dohenv Stone Drill Co. Front Cover
Dow Chemical Company
Dowell, Incorporated
Dresser, S. R., Mfg. Co. 57
Du Pont de Nemours & Co., Inc., E. I.

### E

Eagle-Picher Lead Co.
Eastman Oil Well Survey Co.
Economy Electric Lantern Co. 74
Edward Valve & Mfg. Co., The
Ensco Asbestos Company
Emsco Derrick & Equipment Company
Ensign Carburetor Company, Ltd.
Ethyl Gasoline Corporation
Eureka Tool Co.
Everstick Anchor Co. 84

### F

Failing Supply Co., Geo. E.
Fairbanks, Morse & Co.
Filtrol Co. of California 4
First National Bank of Fort Worth
First National Bank in Houston
First National Bank & Trust Co. of Tulsa, The
Fisher Governor Company
Fitler, Edwin H., Co., The
Fluid Packed Pump Co.
Fluor Corporation, Ltd.
Foote Bros. Gear and Machine Corporation
Ford Motor Co.
Fort Worth National Bank, The
Foster Wheeler Corp.
Four Wheel Drive Auto Co., The
Foxboro Co., The
Franks Mfg. Corp.
Frick-Reid Supply Corporation 48

### G

Gardner-Denver Company
Garlock Packing Company, The
Gaso Pump & Burner Mfg. Co. 54
Gasoline Products Co., The
Gates Rubber Co., The
Gatke Corporation
Gearench Mfg. Co.
General American Transportation Corporation—Terminal Division 68
General Electric Company
General Motors Truck Co.
General Paint Corporation
General Power Co.
Geophysical Service, Inc.
Gilmer Company, L. H.
Girdler Corporation, The
Globe Oil Tools Company
Goodall Rubber Company 33
Gott, H. P., Mfg. Co. 78
Goulds Pumps, Inc.
Grant Oil Tool Company
Graver Tank & Mfg. Co., Inc. 73
Gray Processes Corporation, The
Great Lakes Coal & Coke Co. 78
Green Head Bit & Supply Co.
Gregory Company, The L. S.
Guiberson Corporation, The
Gulf Oil Corp.
Gulf States Utilities Co.
Gustin-Bacon Mfg. Co.

### H

Halliburton Oil Well Cementing Co.
Hanlon-Buchanan, Inc.
Happy Belting Company
Harnischfeger Corporation
Harrisburg Steel Corporation 67
Hazard Wire Rope Division of American Chain & Cable Co., Inc.
Heeter, C. M., Sons Co.
Hercules Tool Company
Hewitt Rubber Corp.
Hill, Hubbell & Co.
Hinderliter Tool Company
Hoard Exploration Company 91
Holder-Jewell
Hopper Machine Works, Inc.
Hough Mfg. Co., The Charles N.
Hughes Tool Co. Back Cover
Humble Oil & Refining Co.
Hunt Tool Company
Hyatt Bearings Division, General Motors Corporation
Hydrauger Corporation, Ltd.
Hydril Co. Front Cover
Hynes, Eugene J. & Co., Inc. 81

### I

Independent Exploration Company
Independent Pipe & Supply Co.
Ingersoll-Rand Co.
International Derrick & Equipment Co., The
International Filter Co.
International Harvester Co. of America, Inc.
International Nickel Company, Inc., The
Irvington Varnish & Insulator Co. 53

### J

J & S Carburetor Co.
Jarecki Manufacturing Company
Jeffery Mfg. Co.
Jenkins Bros.
Jensen Brothers Manufacturing Co.
Jerguson Gage & Valve Co.
Johns-Manville Corporation
Johnston & Jennings Co. (Oceco Division)
Johnston, M. O., Oil Field Service Corp.
Johnston Oil Field Service Corporation
Jones Company, The S. M.
Jones & Laughlin Steel Corporation Inside Front Cover

### K

Kellogg, M. W., Company, The 42
Kennedy Valve Mfg. Co., The
Kerotest Manufacturing Co.
Keuffel & Esser Co.
Key Company
Keystone Driller Co.
Kibele Manufacturing Co.
Koppers Company, American Hammered Piston Ring Division
Koppers Company, Bartlett Hayward Division

### L

Landis Machine Co., The
Lane-Wells Co., The
Larkin Packer Co.
Lawrence System
Layne and Bowler Co., The
Layne & Bowler, Inc.
Leach Co., C. H., Inc.
Leeds & Northrup Company
Leonard Construction Co.
Leschen, A., Sons Rope Co.
Lincoln Electric Company, The
Linde Air Products Co., The
Link-Belt Company
Lockheed Aircraft Corporation
Lone Star Cement Corporation
Lone Star Gasoline Co.
Lucey Products Corporation
Ludlow Valve & Mfg. Co., The
Lufkin Foundry & Machine Co.
Lufkin Rule Co., The 78
Lummus Co., The
Lunkenheimer Co., The
Lycoming Manufacturing Company

### Mc

McAlear Mfg. Co., The
McCord Radiator & Mfg. Co.
McGregor Working Barrel Company 91
McKissick Products

### M

MacClatchie Manufacturing Company 72
Macwhyte Co.
Maloney Tank Mfg. Co.
Manhattan Rubber Mfg. Division
Manzel Brothers Company
Marley Company, The
Marmon-Herrington Co., Inc.
Martin-Decker Corp.
Mathey Machine Works, C. A.
Mattison-Wallack & Co.
Medart Company, The
Meehanite Metal Corporation
Mepham, Geo. S., Corporation
Merco Nordstrom Valve Co.
Metric Metal Works
Midco Tool & Supply Co.
Midwest Piping & Supply Company, Inc., The
Miller Sand Pump Co.
Minneapolis-Moline Power Implement Company
Mission Mfg. Co., The 31
Monsanto Chemical Company
Muskogee Iron Works

### N

National Airoil Burner Company 78
National Bank of Tulsa
National Lead Co.
National Supply Co., The 22
National Transit Pump & Machine Co. 6
National Tube Co.
Natural Gas Equipment Co. of Texas
Naylor Pipe Company
New Deal Specialty Co., The
Newman Hender & Co., Ltd.
Norvell-Wilder Supply Company

### O

O-K Machine & Manufacturing Co.
O'Bannon Co., Walter
Oceco Fittings
Oil Center Tool Co.
Oil Well Supply Company
Oil World Exposition
Oklahoma Gas and Electric Company
Oklahoma Portland Cement Co.
Oster Manufacturing Company 69
Otis Pressure Control, Inc.
Owens-Illinois Glass Company
Oxweld Acetylene Company

### P

Page Steel & Wire Division of American Chain & Cable Co., Inc. 58
Parkersburg Rig & Reel Co., The
Parsons Co., The Ralph M.
Parsons Company, The
Patterson-Ballagh Corporation
Penberthy Injector Co. 21
Pennsylvania Grade Crude Oil Association
Petroleum Electric Power Club
Petroleum Engineering, Inc.
Petroleum Engineering Research Co.
Petroleum Equipment Company
Petroleum Iron Works Company
Petroleum Rectifying Company 41
Petroleum Specialty Company, The
Petty Geophysical Engineering Co.
Pittsburgh-Des Moines Steel Company

### P

Pittsburgh Equitable Meter Co.
Pittsburgh Steel Company
Polymerization Process Corporation, The
Pomona Pump Co. 78
Portable Rig Co.
Preformed Wire Rope
Prest-O-Lite Company, Inc., The
Price Co., H. C.
Pure Oil Co.

### R

Reading-Pratt & Cady Division of American Chain & Cable Co., Inc.
Rector Well Equipment Co., Inc.
Reed Roller Bit Company 44-45
Regan Forge & Engineering Co.
Reid, Joseph, Gas Engine Company
Reilly Tar & Chemical Corporation
Republic Steel Corporation
Ridge Tool Co., The
Rieber Laboratories
Ryerson & Son, Inc., Joseph T.

### S

Schlumberger Well Surveying Corporation
Seamless Steel Corporation
Security Engineering Co.
Seismograph Service Corp.
Shaffer Specialty Co., The
Shaffer Tool Works
Shand & Jurs Co.
Sharples Specialty Co., The
Shell
Sinclair Refining Company, Inc.
Skinner Co., M. B.
Smith, A. O., Corporation 2-3
Smith Company, E. M.
Smith, Nowery J., Supply Company
Smooth-On Mfg. Co. 74
Socony-Vacuum Oil Co.
South Chester Tube Co.
South Texas Geophysical Corp.
Spang & Company
Spang, Chalfant & Co., Inc.
Sperry-Sun Well Surveying Co. 74
Stahmer Shoe Co., F. H.
Standard Brake Lining Co. 65
Star Drilling Machine Company
Star Manufacturing Company

### T

Taylor Instrument Companies 62
Texaco Development Corporation
Texas Electric Service
Texas Iron Works
Texas Steel Co.
Thornhill-Craver Co., Inc. 73
Timken Roller Bearing Company
Timken Steel & Tube Co. 51
Themec Company, Inc.
Tobin Aerial Surveys, Edgar
Toledo Pipe Threading Machine Co.
Trackson Company
Tretolite Co.
Trinity Portland Cement Company
Tube Turns, Inc.
Tulsa Chamber of Commerce
Twin-Disc Clutch Co.

### U

Union Carbide & Carbon Corporation
Union Carbide Sales Company
Union Asbestos and Rubber Co.
Union Wire Rope Corporation
United American Bosch Corp.
United States Rubber Company
United Supply & Manufacturing Company
Universal Atlas Cement Co.
Universal Oil Products Co. 34

### V

Vernon Tool Co., Ltd. 65
Vogt, Henry, Machine Co.
Vortox Mfg. Co.

### W

Wailes Dove-Hermiston Corporation
Waldron Corp., John 84
Wall Rope Works, Inc. 65
Wallace, Muller & Company, Ltd.
Walworth Company
Warren Petroleum Company
Watson-Stillman Co., The
Waukesha Motor Company
Westinghouse Electric
Wheatley Bros.
Wheeling Machine Products Co.
Wickwire Spencer Steel Company 27
Williams & Co., J. H.
Williamsport Wire Rope Co.
Wilson Manufacturing Co.
Wilson-Snyder
Wilson Supply Company
W. K. M. Company, Inc. 61
Worthington Pump & Machinery Corporation
Wyatt Metal & Boiler Works

### Y

Young Engine Corporation
Young Radiator Company
Youngstown Sheet & Tube Co., The

# *Truly Universal*

DUBBS CRACKING makes the highest yield of the best anti-knock gasoline from any charging stock and at lowest cost, royalty and all

U. O. P. inhibitors keep the gum all out of cracked gasoline and the anti-knock value all in—and save chemical treating costs

U. O. P. catalytic polymerization converts cracked gases, formerly burned as fuel, into polymer gasoline of high anti-knock rating and even higher blending value—at low cost

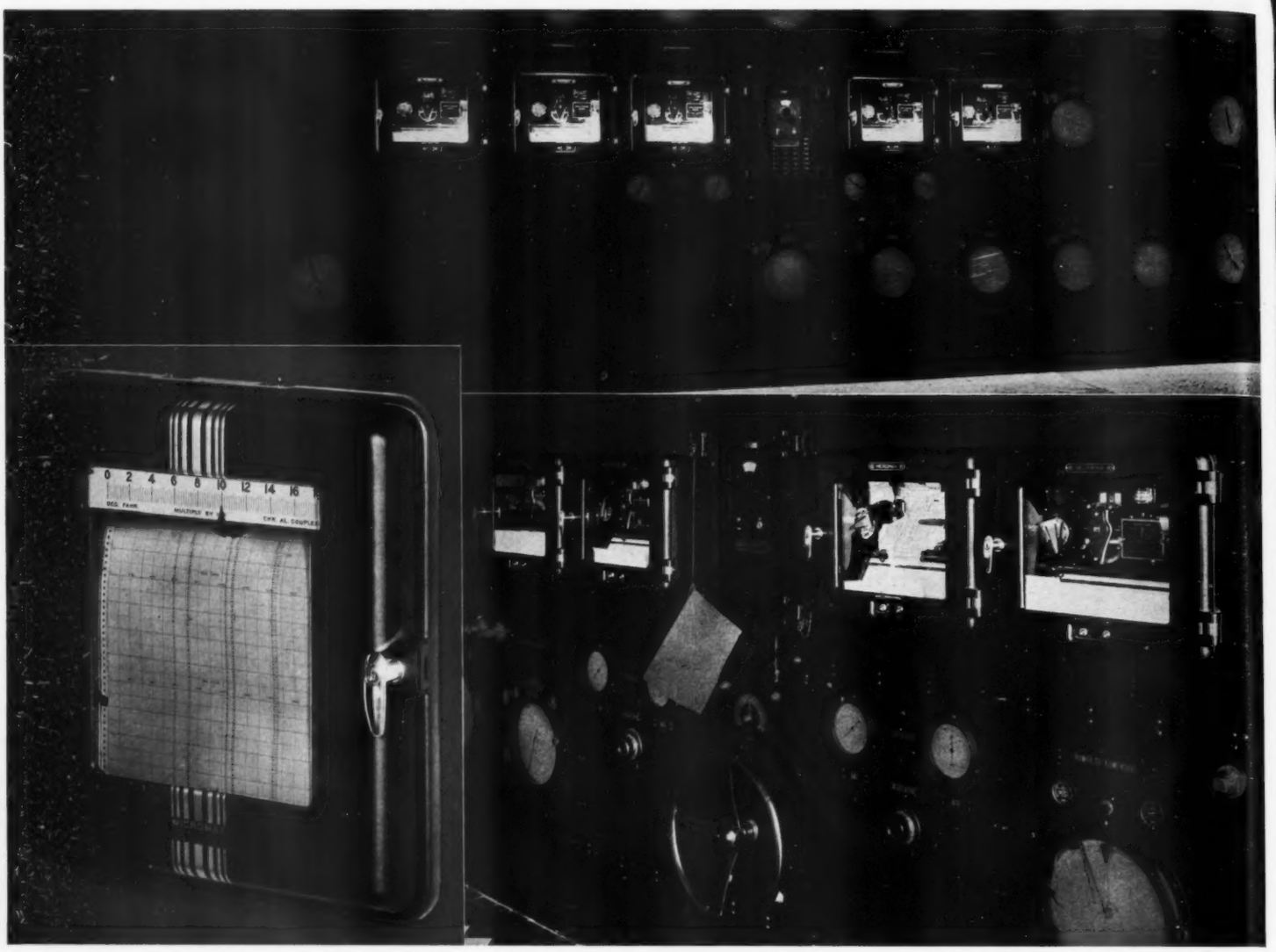
Universal research is continually at work bringing out new processes and perfecting its established ones

All these processes are available to all refiners

*Truly Universal*

Universal Oil Products Co
Chicago Illinois

Dubbs Cracking Process
Owner and Licensor



Latest (Silver Anniversary) Model Micromax Multiple-Point Recording Pyrometer.

Micromax Recording Pyrometers on Dubbs Process Control Panels in U.S.A. and Roumania.

# Micromax

## RECORDING PYROMETERS AS USED BY U. O. P.

For temperature records, and for indicating and checking of Dubbs Process temperatures on Control Panels and in Control Houses, Micromax Pyrometers are widely used by the Universal Oil Products Company.

A typical installation includes single-point and multiple-point Recorders, thermocouples, manually-operated Indicator, and switches for temporarily transferring any couple from Recorder to Indicator. In all climates these instruments are performing dependably. To operators of all races, the temperature facts necessary to operate the Dubbs Process at full efficiency are being supplied by Micromax.

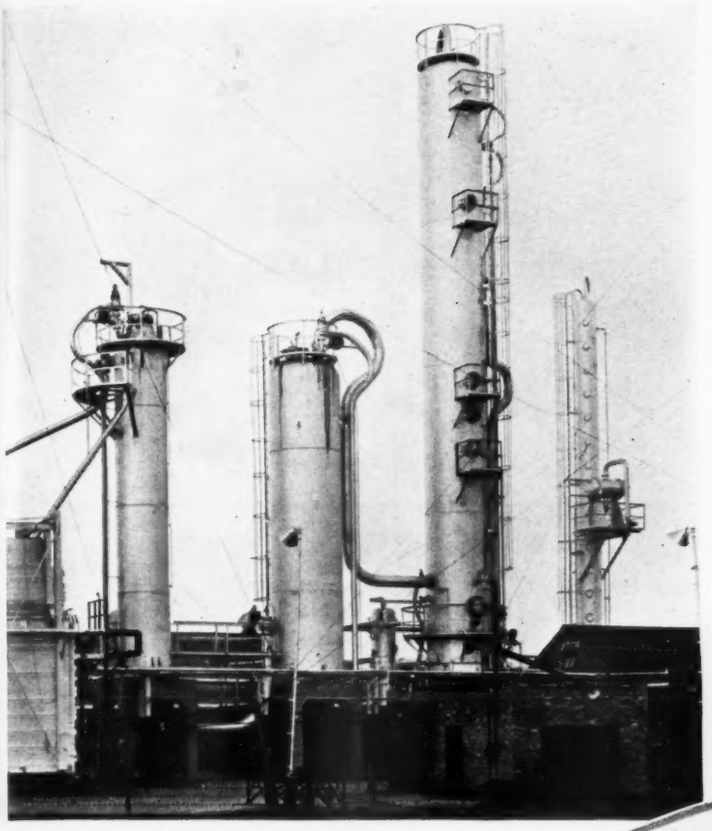
J-N-33-702(1)

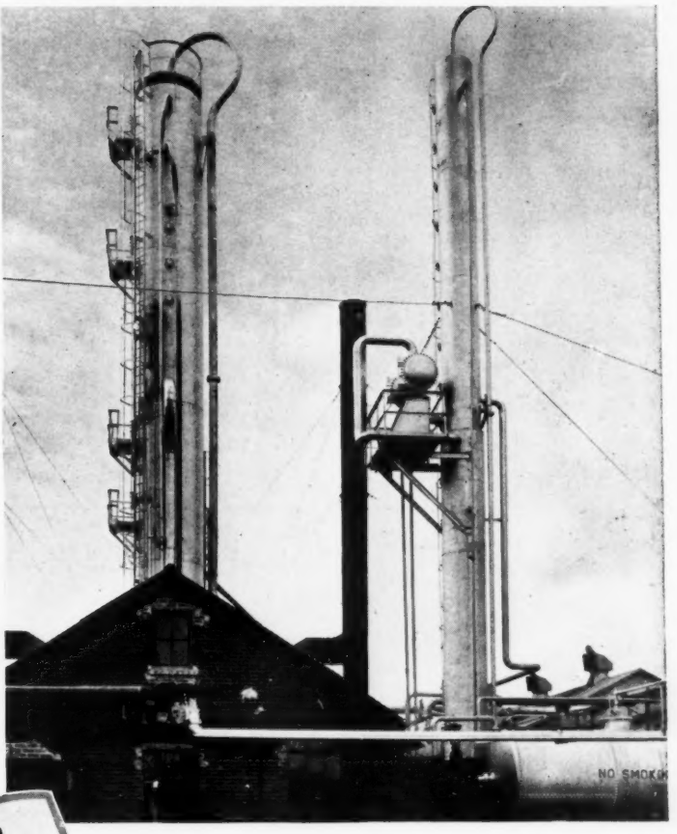
**LEEDS & NORTHRUP COMPANY**

4957 STENTON AVENUE PHILADELPHIA, PA.

**LEEDS & NORTHRUP**

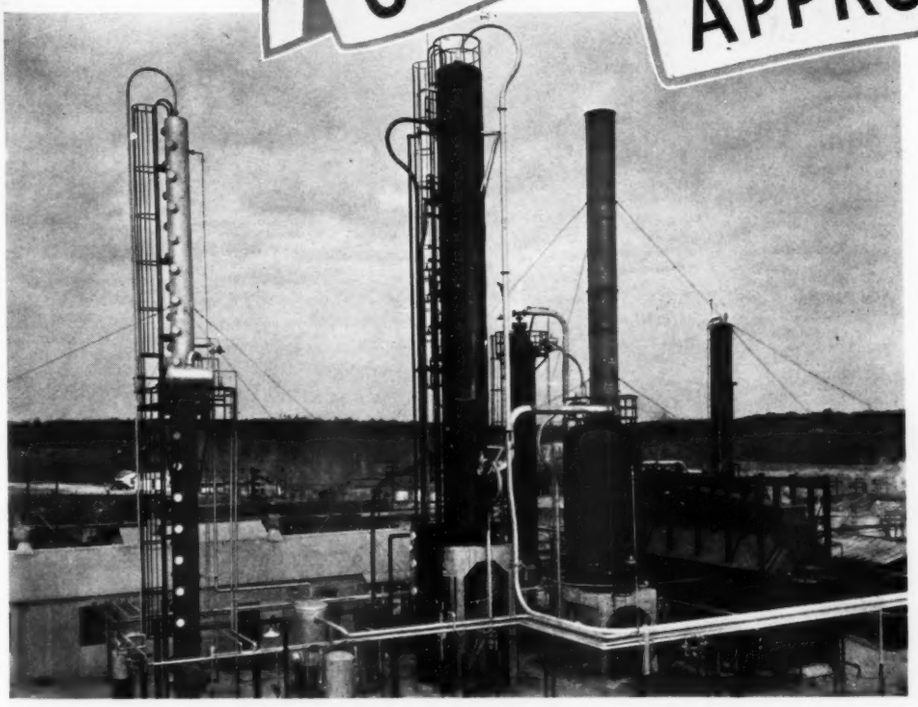
MEASURING INSTRUMENTS • • TELEMETERS • • AUTOMATIC CONTROLS • • HEAT-TREATING FURNACES





*Bubble towers for Barnsdall Oil Corp., Wichita, Kansas, fabricated from drawings and specifications furnished through Frick-Reid Supply Corp., UOP inspection for Dubbs Unit.*

# UNIVERSAL APPROVAL



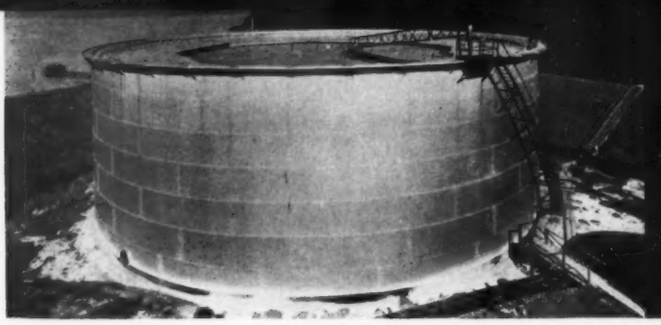
*Bubble towers for Solvex Refining Co., Gladewater, Texas, fabricated from drawings and specifications furnished through Frick-Reid Supply Corp., UOP inspection for Dubbs Unit.*

The stamp of approval of the Universal Oil Products Company on a refining plant means world-wide assurance of the latest in engineering skill and good workmanship.

Wyatt Metal & Boiler Works, through many fabrications for UOP supervised plants, values highly the stamp of approval given its own work by these eminent engineers.

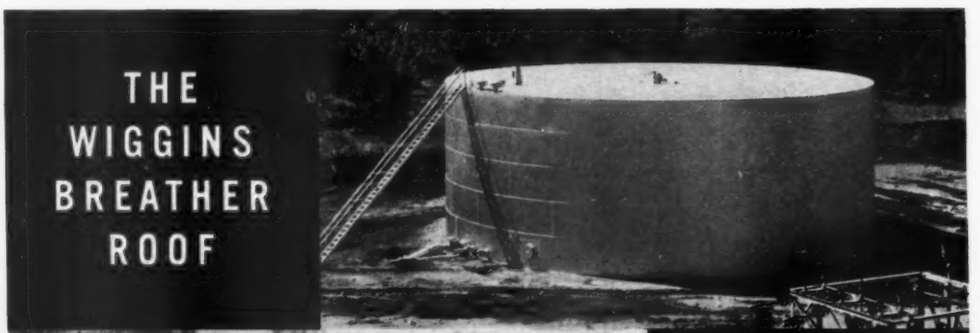
## WYATT METAL & BOILER WORKS

DALLAS - HOUSTON

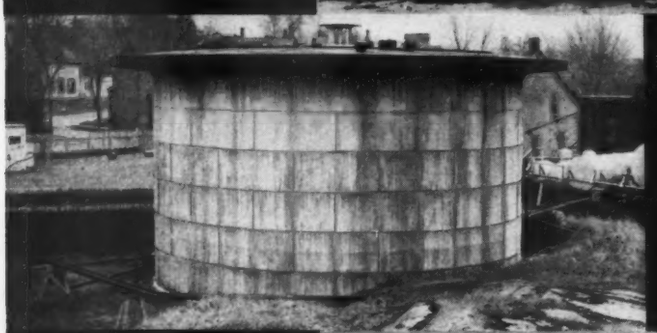


THE WIGGINS PONTOON ROOF

# as MODERN as

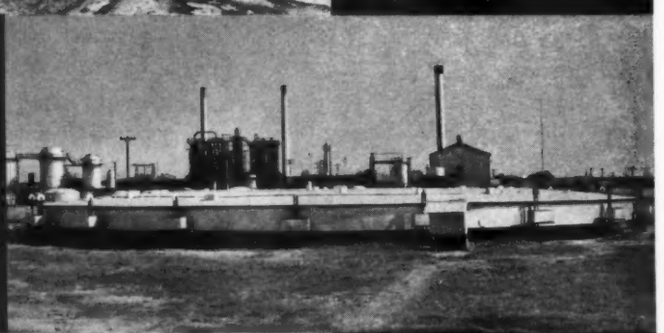


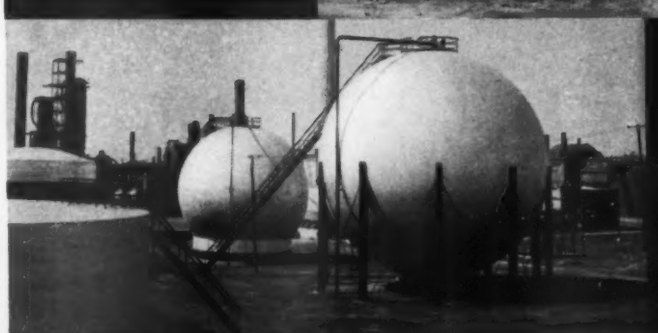
THE WIGGINS BREATHER ROOF



THE WIGGINS BALLOON ROOF

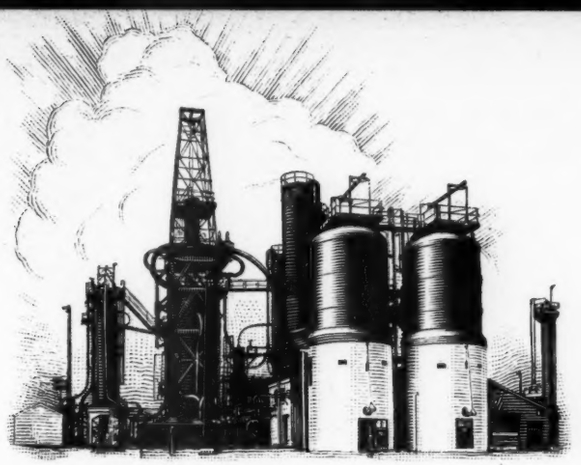
THE WIGGINS BALLOON





THE HORTONSPHERE

THE HORTONSPHEROID



# MODERN REFINING PRACTICES

## *(and just as necessary!)*

GONE are the days when gasoline was just gasoline. No longer is it possible to sell a product of uncertain composition and irregular characteristics to performance-conscious buyers. Today, it takes a *calibrated motor fuel*—stabilized, blended, mixed, and otherwise tailor-made to exactly meet the requirements of specific types of engines. Also gone are the days when the oil industry had little choice but to accept wide-scale evaporation loss (which was a contributing factor to the lack of uniformity in early gasolines).

Dating from the introduction of the Wiggins floating roof early in the 1920's, progress in motor fuels has been matched and aided by equal strides in the development of special tanks and tank roofs for increasing efficiency in storing and handling volatile oil. As a result, you can now find in the Horton line exactly the right solution for virtually any storage or handling problem.

THE WIGGINS PONTOON ROOF is used the world over as standard equipment for all working tanks handling products that do not boil at ordinary atmospheric temperatures.

THE WIGGINS BREATHER ROOF is seldom matched for the high returns it pays on standing storage tanks above 60 ft. in diameter that are kept full or nearly full most of the time.

THE WIGGINS BALLOON ROOF is a new unit which now makes the breather roof principal both practical and profitable for smaller standing storage tanks and for tanks that are not always kept filled.

THE WIGGINS BALLOON is a larger unit designed to serve as a central gas-holder in vapor saving systems serving groups of tanks through inter-connected gas-tight piping.

THE HORTONSPHERE is a modern pressure storage container available in a wide range of sizes for pressures of from 25 to 100 lb. per sq. in. or higher.

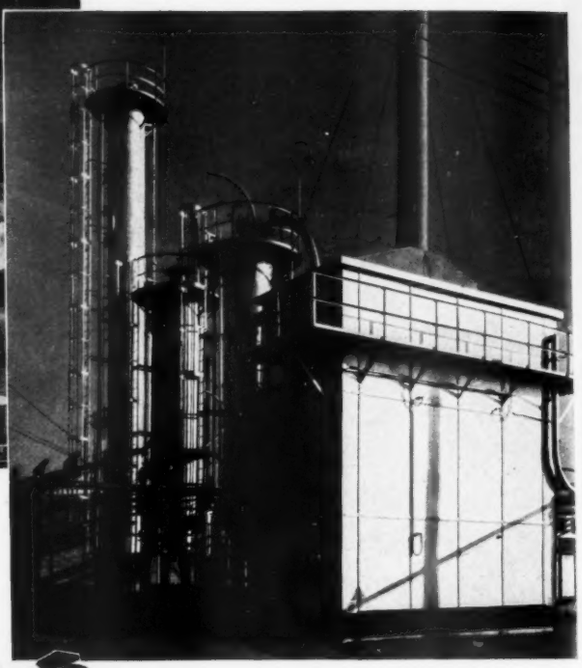
THE HORTONSPHEROID is widely used as a pressure storage unit for pressures up to 25 lb. per sq. in. It is also becoming increasingly useful in large sizes for handling high test motor fuels at 2½ lbs. per sq. in. pressure.

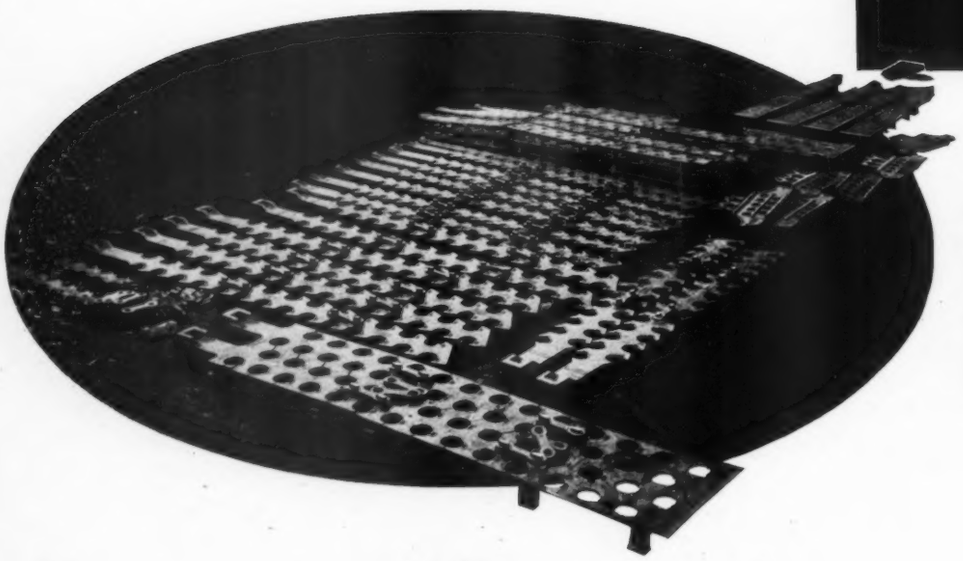
We will be glad to give you complete information about any or all of these products. Please address our nearest office.

# CHICAGO BRIDGE & IRON COMPANY

| | | |
|---|---|---|
| Dallas.....1441 Liberty Bank Building | Chicago.....2128 Old Colony Building | Philadelphia.....1615-1700 Walnut Street Building |
| Houston.....2919 Main Street | Detroit.....1514 Lafayette Building | Boston.....1517 Consolidated Gas Building |
| Tulsa.....1606 Hunt Building | Cleveland.....2204 Rockefeller Building | San Francisco.....1054 Rialto Building |
| Birmingham.....1536 North Fiftieth Street | New York.....3347-165 Broadway Building | Los Angeles.....1423 Wm. Fox Building |

***FABRICATING PLANTS in Birmingham, Chicago, and Greenville, Pa.***





Illustrated are two views of a Montana refinery designed and built by the Ralph M. Parsons Company, a typical Dubbs cracking installation.

We also show part of a shipment of 27 tons of AMSCO Alloy Dubbs still parts for a Persian U. O. P. installation.

# Amsco Alloy plays a part...

## AMSCO ALLOY

AMSCO Alloy cast heat and corrosion resistant parts are ideally applied to stills, cracking chambers, kilns, and other refinery process equipment that is subjected to high temperatures and corrosive action of gases. AMSCO Alloy is widely used for beams, hangers, tube sheets, angle stiffeners, and in numerous other forms to resist temperatures up to 2000° F.

## in Raising Gasoline Yield, and Increasing Octane Rating with The Dubbs Cracking Process!

Hundreds of tons of AMSCO Alloy Still and Furnace Castings are used in refineries the world over; affording complete heat and corrosion resistance in Dubbs Process installations.

Supplied according to the specifications of the Universal Oil Products Company, AMSCO Alloy effects worthwhile savings in channels, end sheets, beams, hangers and other parts because of the great length of service rendered.

Properly applied, AMSCO Alloy does not bend, burn, crack, warp or scale, and provides outstanding resistance to the corrosive action of sulphur gases and temperatures up to 2000° F.

To reduce your maintenance and minimize your rebuilding costs — specify AMSCO Alloy for all furnace and still castings requiring heat and corrosion resistance.

Let us give you detailed service reports and facts on how AMSCO Alloy cuts operating costs.

**AMSCO**

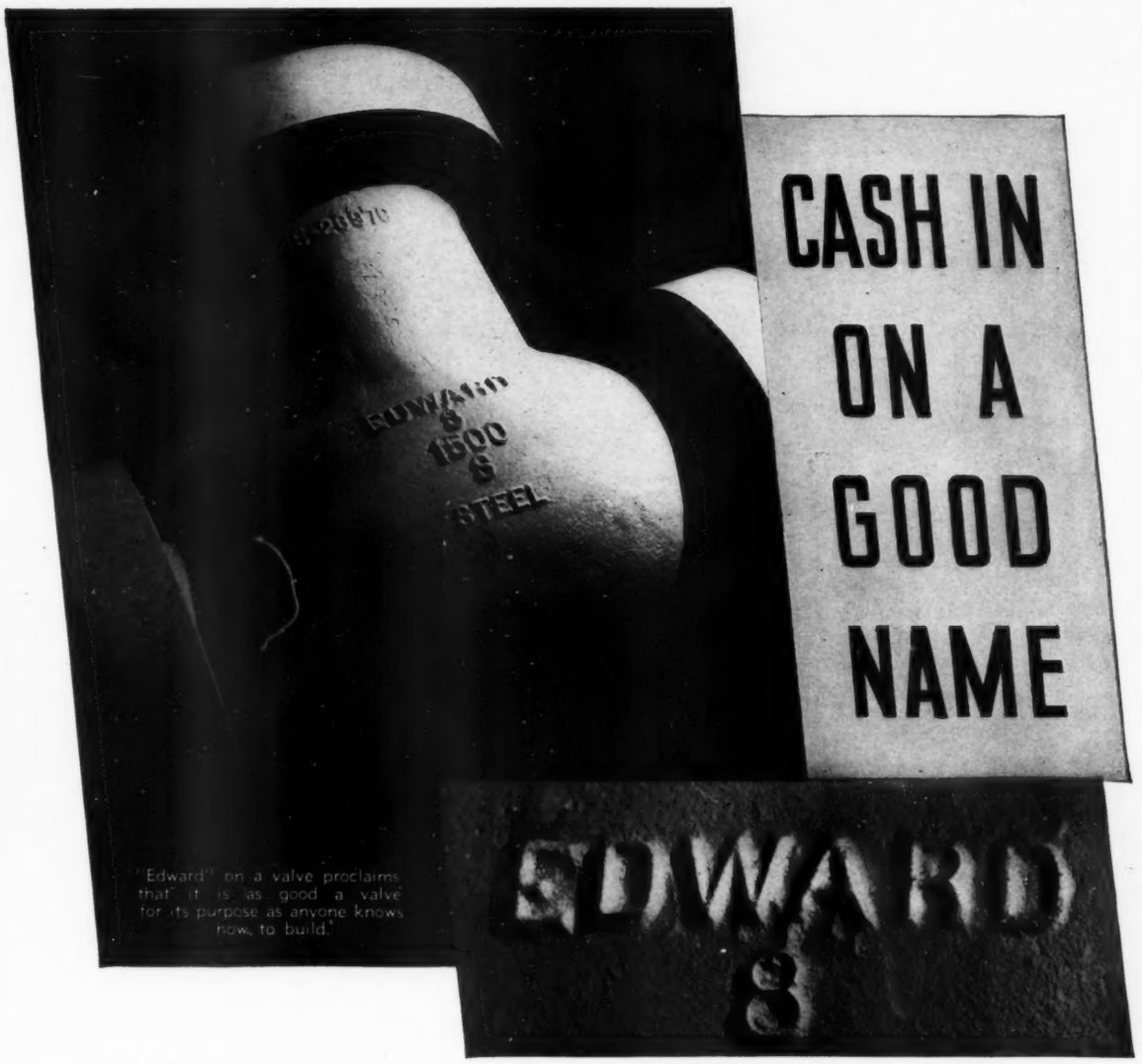
TRADE MARK REGISTERED

**AMERICAN MANGANESE STEEL COMPANY**

*Division of American Brake Shoe & Foundry Company*

408 East 14th Street, Chicago Heights, Ill.

*Foundries at Chicago Heights, Ill.; New Castle, Del.; Denver, Colo.; Oakland, Calif.; Los Angeles, Calif. Offices in Principal Cities*


CASH IN
ON A
GOOD
NAME
EDWARD
8
"Edward" on a valve proclaims that it is as good a valve for its purpose as anyone knows how to build.

**WHEN you buy valves for tough service, you can rely on Edward's jealously-guarded reputation. The Edward name stands for things that will save you money . . . rigid adherence to craftsmanship of the highest standard . . . a wise blend of progress and conservatism in design . . . materials tested literally bar by bar and casting by casting . . . endless searching for sound laboratory facts that will augment the scope and usefulness of alloys. That these things are valued is attested by the prominent positions occupied by Edward valves in the new industrial and utility plants.**

• • •

**The Edward Valve & Mfg. Co., Inc.**
**EAST CHICAGO INDIANA**

# EDWARD VALVES

# ENGINEERS...

# Since-

These illustrations are views of one of the largest Dubbs Units in the world. It is a combined topping, cracking, and reforming unit with stabilization. We designed, and are constructing, this plant in Houston, Texas, for The Shell Petroleum Corporation.

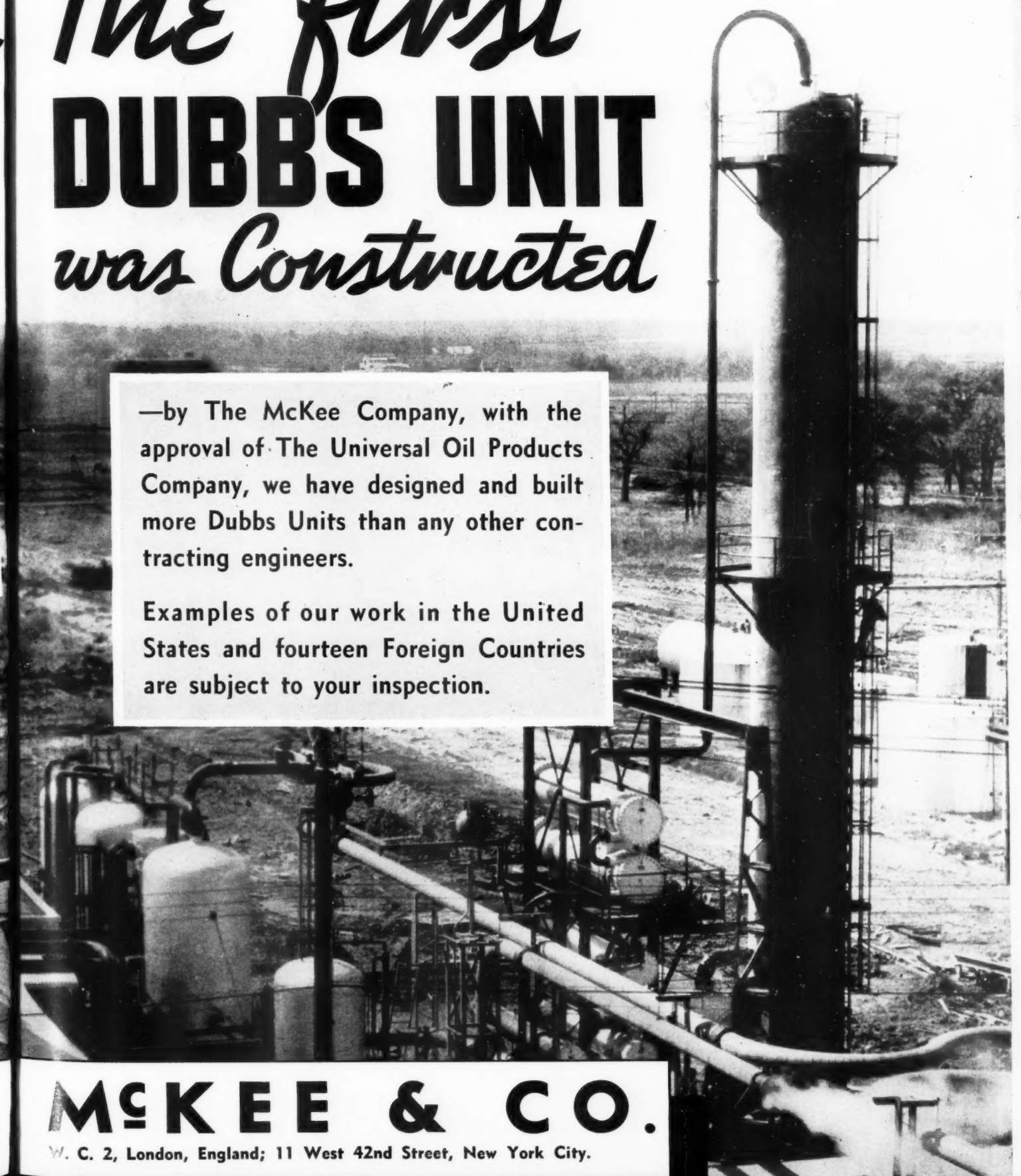
**30 YEARS of SERVICE**

## ARTHUR G.

2422 Euclid Avenue, Cleveland, Ohio; Bush House, Aldwych

# CONTRACTORS

# *the first* DUBBS UNIT *was Constructed*



—by The McKee Company, with the approval of The Universal Oil Products Company, we have designed and built more Dubbs Units than any other contracting engineers.

Examples of our work in the United States and fourteen Foreign Countries are subject to your inspection.

## McKEE & CO.

W. C. 2, London, England; 11 West 42nd Street, New York City.

# *Consider the Safety of* Drop Forged Steel *for High Pressures and Temperatures*

Where Safety is considered in any Industry operating High Pressure and Temperature Equipment, you will generally find Vogt Drop Forged Steel Valves and Fittings. They *are* Safe because they *are drop forged* and designed with liberal safety factors.

**HENRY VOGT MACHINE CO.**
Incorporated
**Louisville, Kentucky**

*Manufacturers of:* Drop Forged Steel Valves and Fittings, Oil Refinery Equipment, Water Tube and Horizontal Return Tubular Boilers, Ice Making and Refrigerating Machinery, Heat Exchangers.

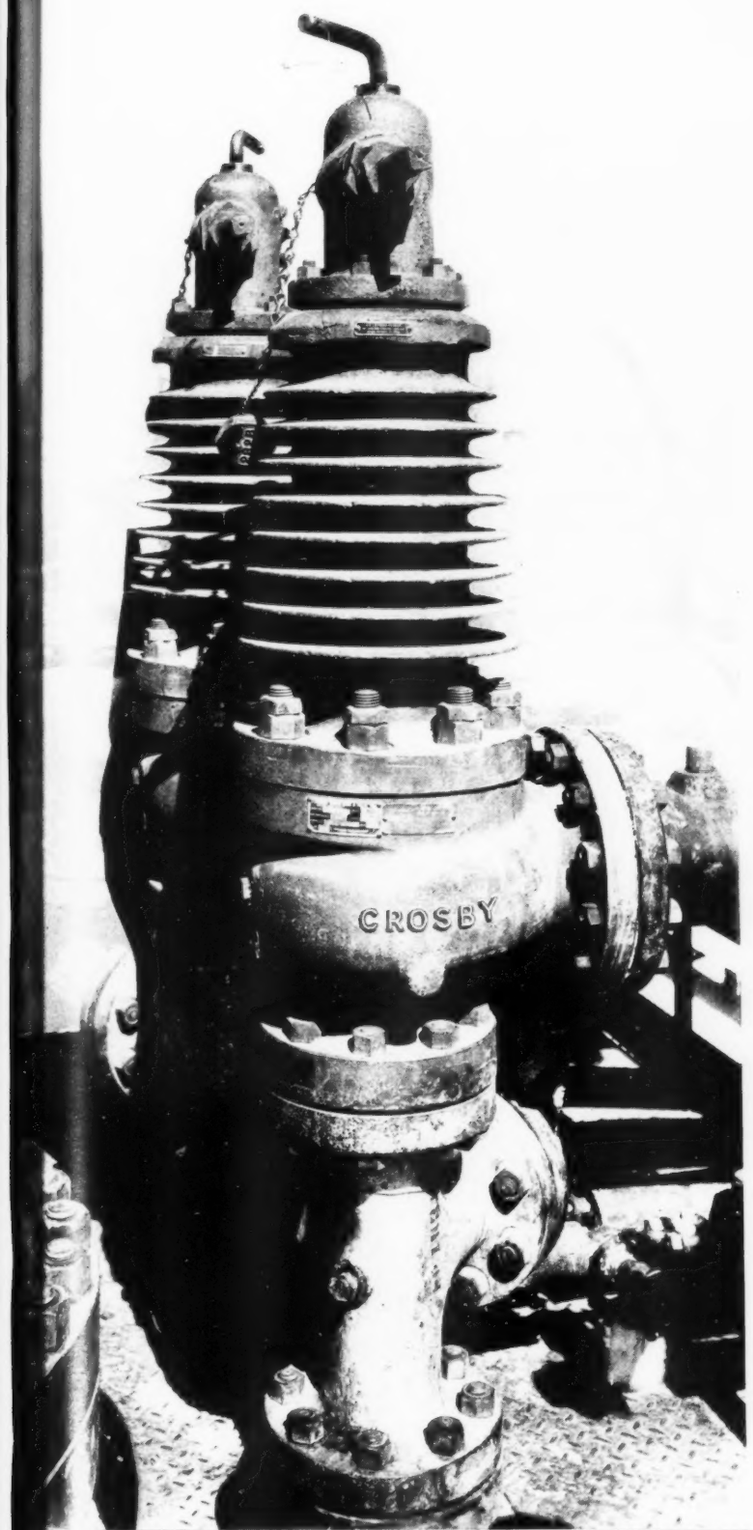
Branch Offices:
NEW YORK
CHICAGO
CLEVELAND
DALLAS
PHILADELPHIA



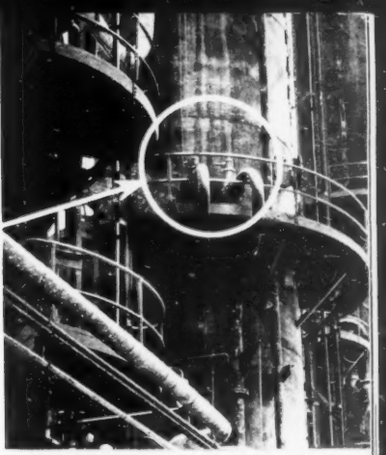

# Vogt

## DROP FORGED STEEL VALVES AND FITTINGS

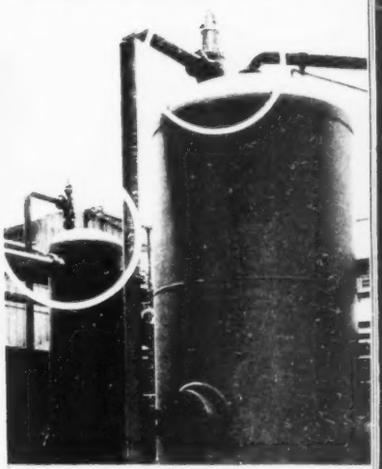
# ROSBY RELIEF VALVES GIVE
# *Automatic Protection*



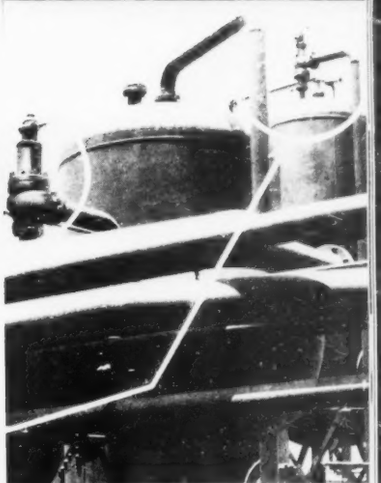

Crude Fractionating Column —Two 4" JJ-164 Crosby Relief Valves. Maximum working pressure and temperature: 800 lbs. at 900°F.



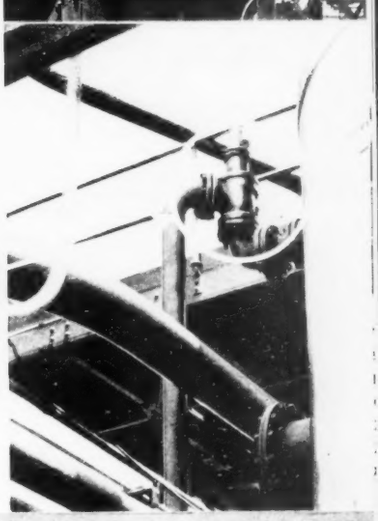
Secondary Tower Reflux Accumulator—One 4" JJ-164 Crosby Relief Valve. Maximum working pressure and temperature: 800 lbs. at 900°F.



Flash Distillate Accumulator —One 1½" JO-164C—Crosby Relief Valve. Maximum working pressure and temperature 500 lbs. at 450°F.



Pressure Distillate Reflux Accumulator (Horizontal)— One 4" JJ-164 Crosby Relief Valve. Maximum working pressure and temperature: 800 lbs. at 900°F.



Stabilizing Reflux Accumulator—One 3" JO-164C— Crosby Relief Valve. Maximum working pressure and temperature: 500 lbs. at 450°F.

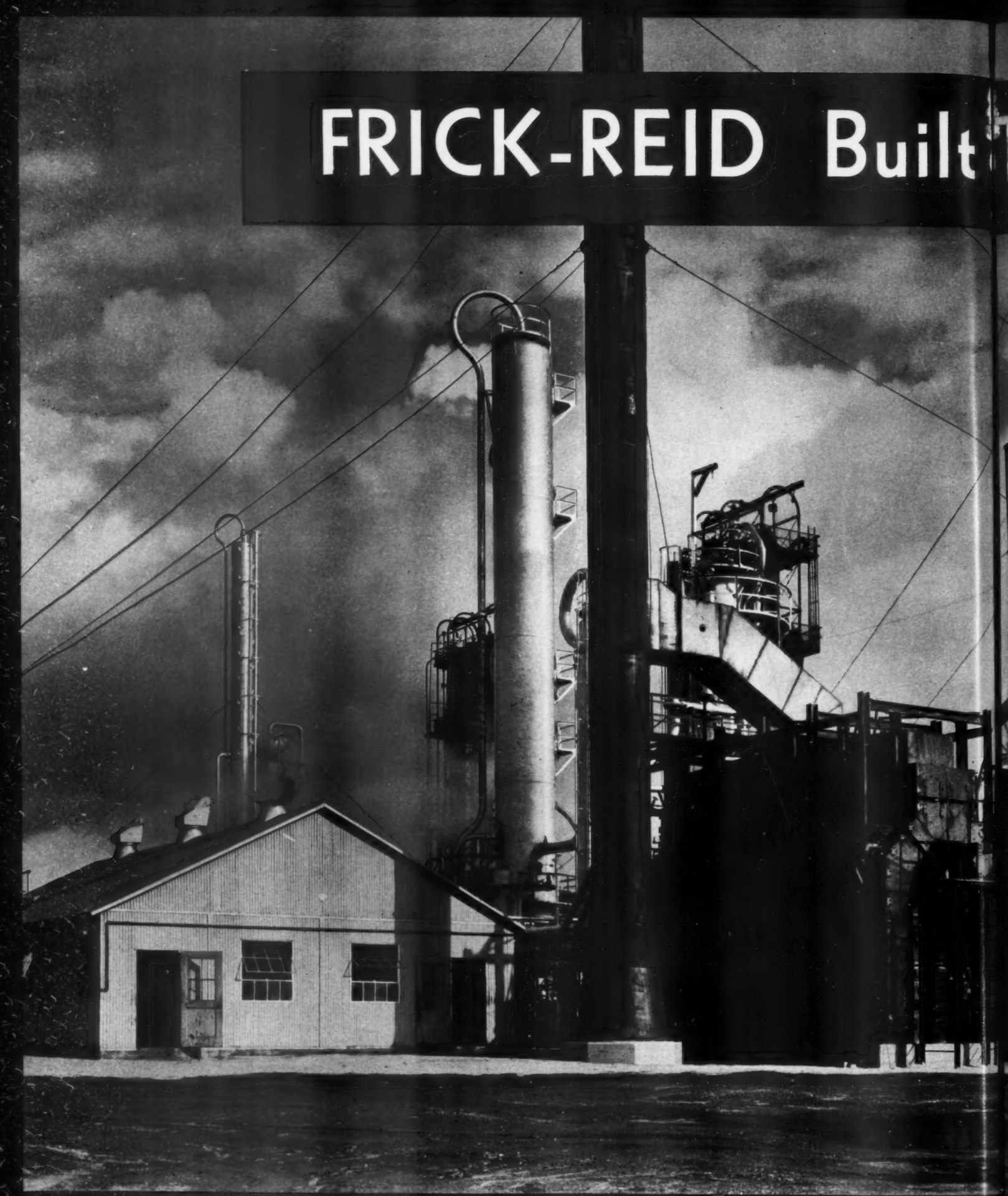


Absorpton Column—One 3" JJ-162 Crosby Relief Valve. Maximum working pressure and temperature: 800 lbs. at 900°F.

**CROSBY** STEAM GAGE AND VALVE CO.

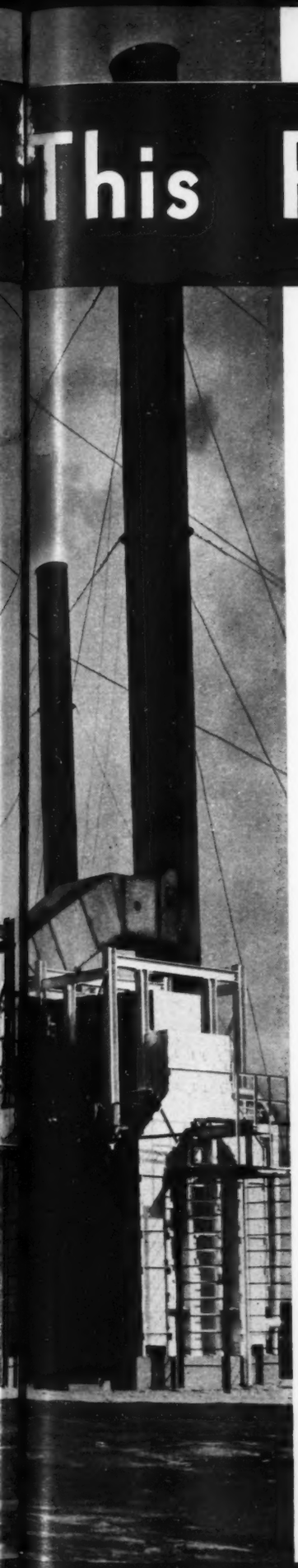
BOSTON · NEW YORK · CHICAGO · LOS ANGELES

● **In the scores of refineries operating under Universal Oil Products Company licenses there is no compromise with safety. Excess pressure danger in various refinery processing steps is eliminated by Crosby Relief Valves.**




FRICK-REID SUPPL

PITTSBURGH, PA



# This Plant in 77 days

The photograph shows a complete new 2,500-barrel Dubbs Cracking Unit at Wichita, Kansas, erected by Frick-Reid for Barnsdall Refining Corporation.

This plant was ready for operation 105 days after the order was placed. The actual construction period was only 77 days.

## As a Result.....

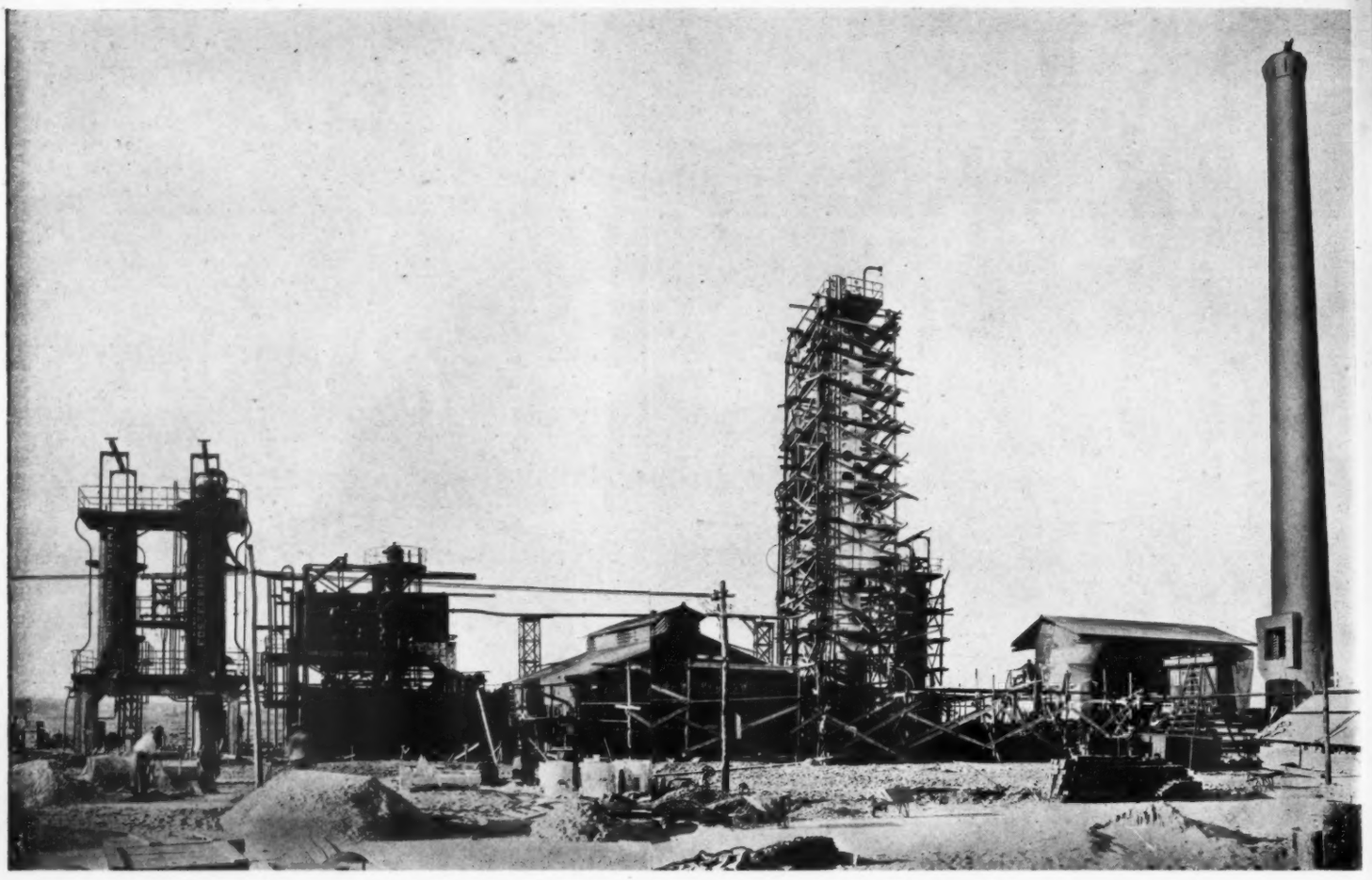
of the construction and operating records of this plant, Frick-Reid has been awarded a contract to build a complete refinery for Barnsdall, including a 5,500-barrel Dubbs Cracking Unit, at Corpus Christi, Texas. The plant is now under construction.

## Refineries on a Turnkey Basis

FRICK-REID furnishes complete Engineering, Design and Erection service for building refineries on a turnkey basis. Simplified designs and close contact with material sources enable FRICK-REID to produce marked economies in cost and erection time.

# LY CORPORATION

A TULSA, OKLA.



DUBBS Cracking Plant processing 30% crude residuum. The complete refinery—including this unit licensed by the Universal Oil Products Company—was designed, fabricated and built by Foster Wheeler Corporation. All guarantees were exceeded on initial test run.

# Cracking and Reforming Plants

In modern refineries, the cracking and reforming plants constitute one of the most important divisions. Refiners' profits depend upon satisfactory operation from the start of the first test run.

Performance depends upon experience in, and selection of:

Processing,
Design,
Fabrication,
Construction.

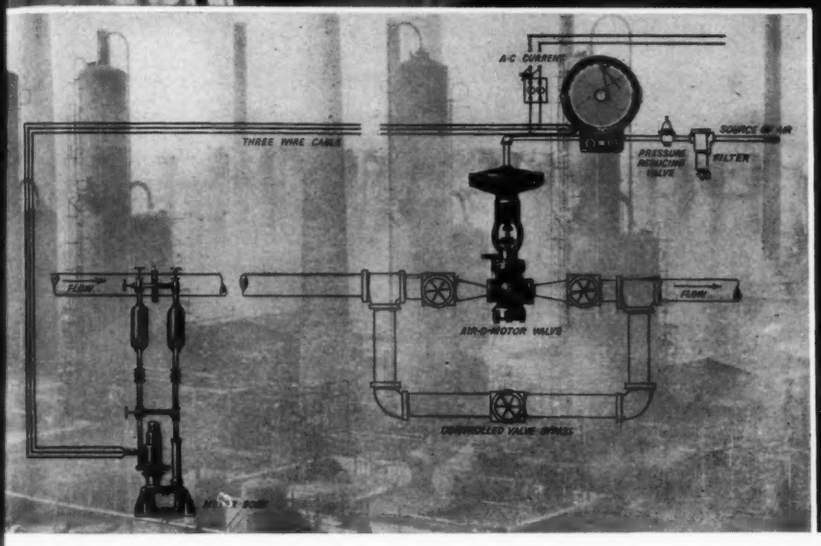
Foster Wheeler consulting service on all refining problems is based upon construction and operating experience throughout the world.

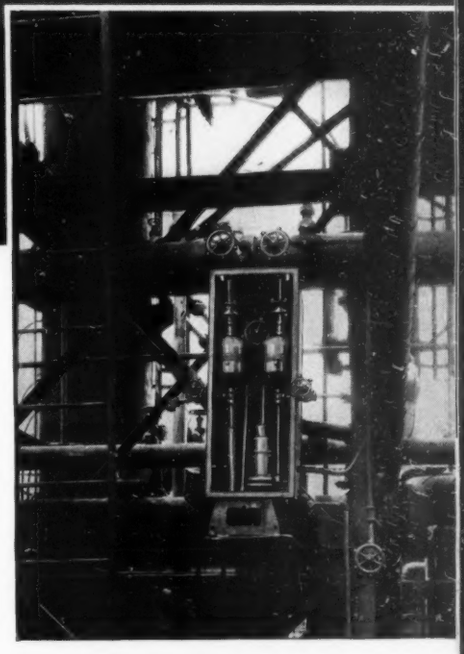
## Foster Wheeler Corporation

**165 Broadway** **New York, N. Y.**

BROWN Air-O-Line

# REMOTE CONTROL HOT OIL CHARGE PUMP



THE above pictures tell a dramatic story of engineering achievement. They show how the problem of remote control of the hot oil charge pumps was solved on an experimental unit of the Universal Oil Products Co. Dubbs cracking process.

The Brown Air-o-Line Flow Controller is the only electric Flow Meter that offers the desirable combination of electric recording with air operated control and remote control setting by means of a calibrated control index.

The air control mechanism of Brown Air-o-Line is mounted inside of the recorder case. A turn of the calibrated control index makes it possible to set the desired flow control at the recording controller, which is mounted on the centralized instrument control board.

Only Brown Air-o-Line flow controllers offer this outstanding advantage—which saves time in putting the controller in operation and insures better coordination of flow with the other variables to maintain balanced operation.

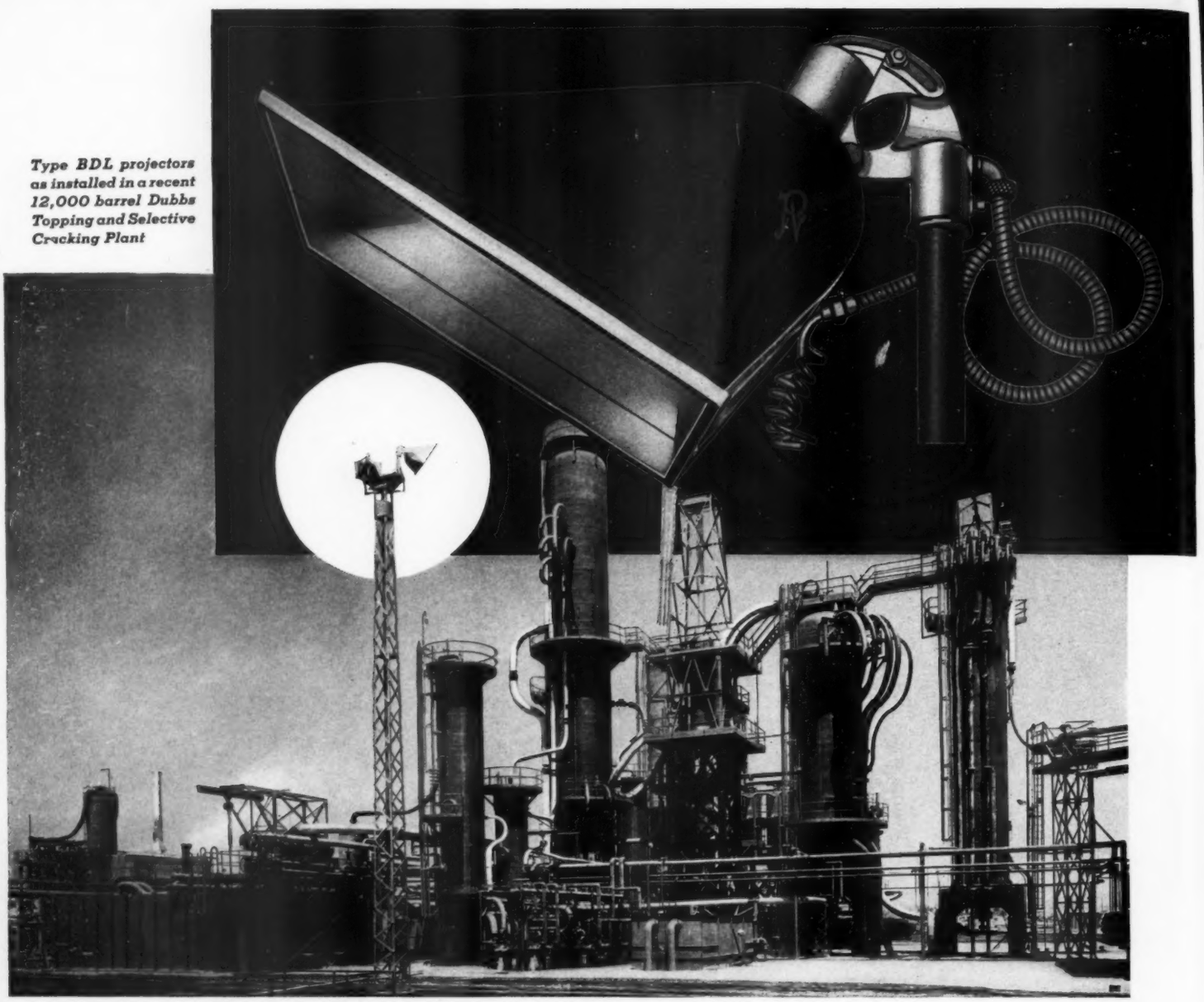
Air-o-Line flow controller is suitable for working pressures up to 2500 lbs. per square inch—equipped with the well-known Brown interchangeable range tube features — Air-o-Line flow and liquid level controllers are easily adapted to meet any operating condition.

The graduated "throttling range" and "automatic reset" dials make it possible to "tune in" to process control as easily as dialing a radio. All that is necessary to set the control index—"tune in" throttling range and automatic reset—once adjusted, Air-o-Line becomes fully automatic. Learn more about Brown Air-o-Line Flow Controllers. Write for information. THE BROWN INSTRUMENT, *a division of Minneapolis-Honeywell Regulator Co.*, 4488 Wayne Avenue, Philadelphia, Pa. Offices in all principal cities. Toronto, Canada: 117 Peter Street. Amsterdam-C, Holland: Wijdesteeg 4. London, England: 70 St. Thomas' Street, S.E.1.

*The above photographs show Brow Air-o-Line Flow Controllers mounte at the centralized control board an the meter bodies installed at the r mote point of measurement. Th schematic diagram shows the pri ciple of electric flow recording b Brown Air-o-Line.*

## BROWN *Air-o-Line* FLOW CONTROLLERS

*Outstanding Performance With Simplicity*



*Type BDL projectors as installed in a recent 12,000 barrel Dubbs Topping and Selective Cracking Plant*

# Pyle-National Floodlighting *makes the night almost as bright as day.....*

Uniform, glareless lighting spread over the entire plant means confident, safer handling of work on the night shift. Pyle-National Type BDL floodlight projectors are scientifically designed to furnish evenly distributed brilliant lighting over large areas. There is plenty of light for detail work anywhere in the plant, plus general visibility over the entire area closely approaching daylight conditions.

Type BDL projectors have a specially developed reflector curve giving diffused lighting, uniformly distributed, and without glare at any angle. These units are totally enclosed, to maintain the initial high efficiency with minimum service attention. The substantial reflector shell is coated with an especially smooth and dense porcelain enamel, rust proof and weatherproof, giving high efficiency light projection without the necessity of constant cleaning.

Simple installation is provided for by the heavy, galvanized bracket with provision for both vertical and horizontal adjustment. Armored cable leads are furnished with conduit union and strain relief bushing, for easy wiring. Type BDL projectors take 1000, 1500 or 2000 watt "PS" lamps. Write for bulletin 161-A.

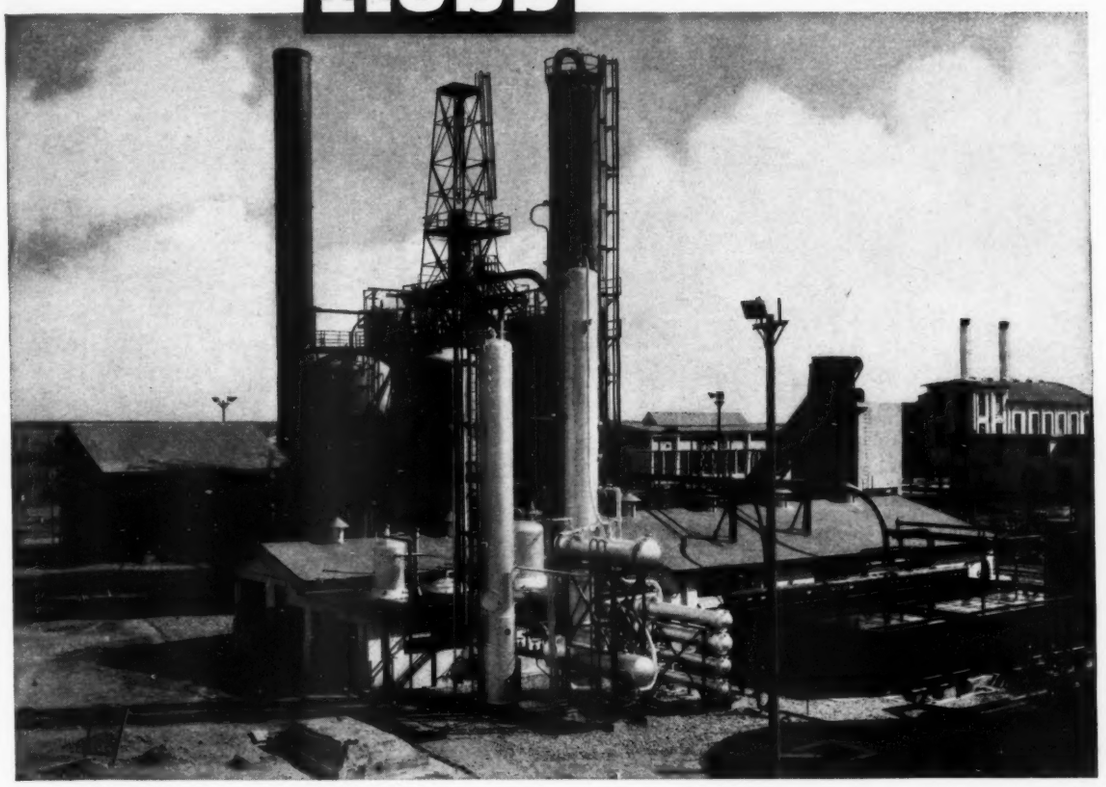
# PYLE-NATIONAL

*Conduit Fittings • Safety Switches • Floodlight Projectors*

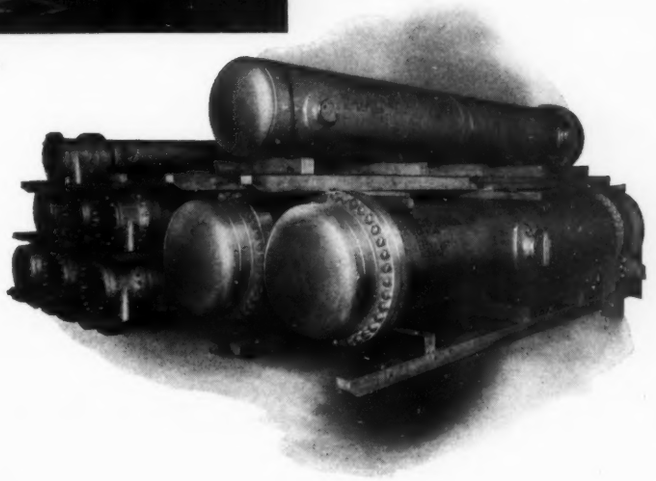
**THE PYLE-NATIONAL COMPANY, GENERAL OFFICES AND WORKS: 1334-58 N. KOSTNER AVE., CHICAGO, ILL.**

# ROSS *Heat Exchangers*

## ARE FOUND WITH DUBBS PROCESS AT ALL POINTS OF THE COMPASS



ROSS HEAT EXCHANGERS ON THE DUBBS INSTALLATION AT BRAZI, ROUMANIA



ROSS HEAT EXCHANGERS ready for export — to be used on Dubbs installation

### THROUGH WORLD-WIDE PRACTICE —

ROSS engineers have gained exceptional familiarity with design and practical application of heat exchangers to solve the Oil Industry's special problems, as well as meeting their needs for standard equipment.

This experience plus a close control of materials, modern shop practice and rigid testing, are responsible for "Ross Reliability" — a reputation which this equipment enjoys at all points of the compass.

## ROSS HEATER & MFG. COMPANY, INC.

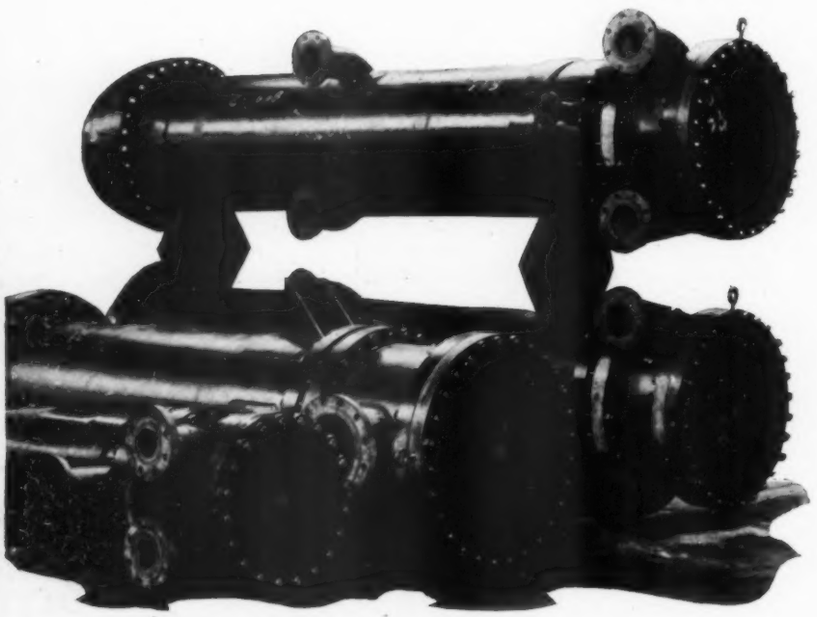
DIVISION OF AMERICAN RADIATOR AND STANDARD SANITARY CORP.

MAIN OFFICE AND WORKS . BUFFALO, N. Y.

CANADIAN ASSOCIATE: HORTON STEEL WORKS, LTD., FORT ERIF, ONT. . . . . FRENCH ASSOCIATE: ETABTS. DELATTRE & FROUARD REUNIS, 39 RUE DE LA BEINFAISANCE, PARIS, FRANCE

# AFTER HALF A CENTURY

**Heat transmission is one of the oldest fields in industry. Struthers-Wells has been studying and working in this field for more than fifty years.**



*Struthers-Wells Heat Exchangers*

**We are learning new facts and new principles every day and applying them to the design and construction of heat exchangers, fractionating columns and other equipment that goes into a modern refinery.**

**We specialize in equipment to meet corrosive conditions.**

**Universal Oil Products Company is quick to recognize progress in design and quality in materials and construction.**

**Universal is a large buyer of Struthers-Wells equipment for cracking units the world over.**

**It will pay you to buy Struthers-Wells equipment, too.**

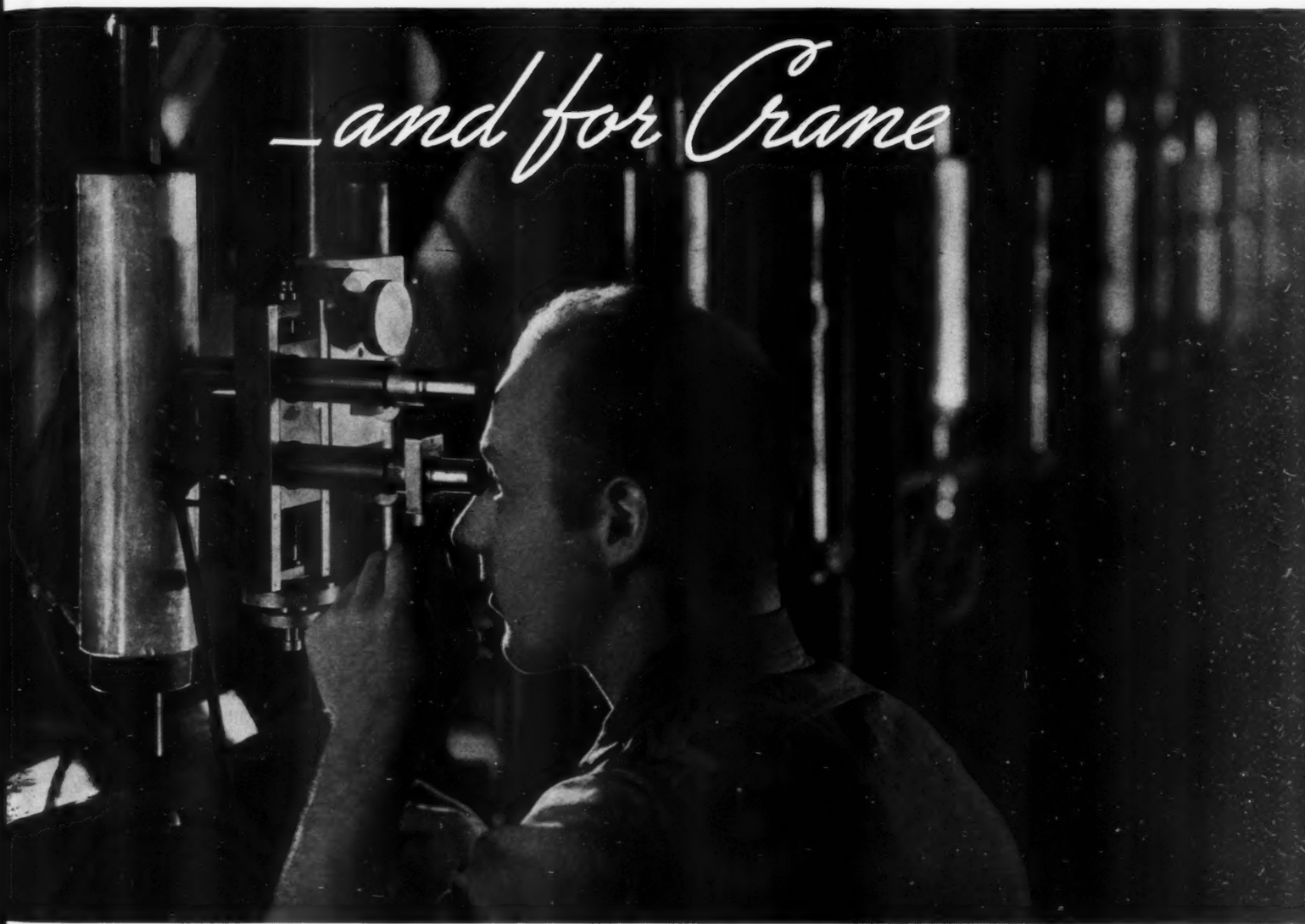
## *STRUTHERS-WELLS*

Division Struthers-Wells-Titusville Corporation

Warren, Pa. -:- Titusville, Pa.

***Represented in principal cities***

# THE MAGIC OF *Research* WORKS FOR THE UNIVERSAL OIL PRODUCTS COMPANY




Behind the achievements of the Universal Oil Products Company stands the almost magical power of research to cast light in dark places . . . to prepare the way for important technical advances . . . to maintain this company in a position of leadership in the oil industry.

Just in this way research works for Crane, also. In the illustration, for instance, a Crane metallurgist is measuring the rate of "creep" in a series of metals used in Crane valves —through these studies Crane learns the pressures and temperatures at which creep rate is limited to 1% for ten years. Thus, year-in and year-out Crane studies steel, alloys, brass—every development of modern metallurgy to determine their fitness for Crane products and for various conditions of use. Both in the laboratory and in the field, Crane Co., through scientific investigation, anticipates tomorrow's needs—finds exactly the combinations of metal and design which will enable Crane valves to maintain a position of undisputed leadership.

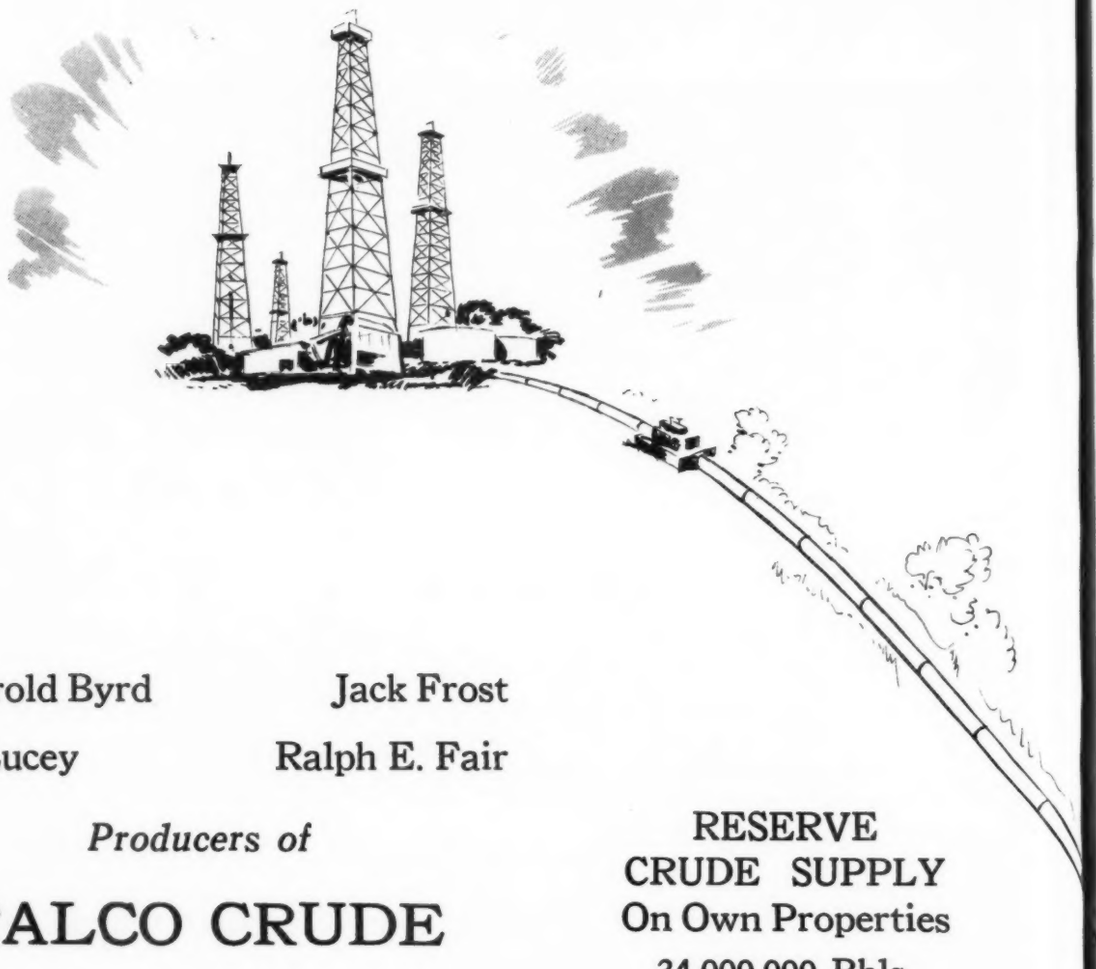
CRANE

CRANE CO., GENERAL OFFICES: 836 S. MICHIGAN AVENUE, CHICAGO, ILLINOIS

*Branches and Sales Offices in One Hundred and Sixty Cities*

VALVES, FITTINGS, FABRICATED PIPE, PUMPS, PLUMBING AND HEATING MATERIAL

# Completely Controlled from



D. Harold Byrd — Jack Frost

J. F. Lucey — Ralph E. Fair

*Producers of*

## TALCO CRUDE

RESERVE
CRUDE SUPPLY
On Own Properties
34,000,000 Bbls.

Owners of

## TALCO PIPE LINE CO.

## TALCO ASPHALT & REFINING CO.

# TALCO ASPHALT &

J. K. MacKINNON
*General Manager*

Mt. Pleasa

# CRUDE to Refined Product

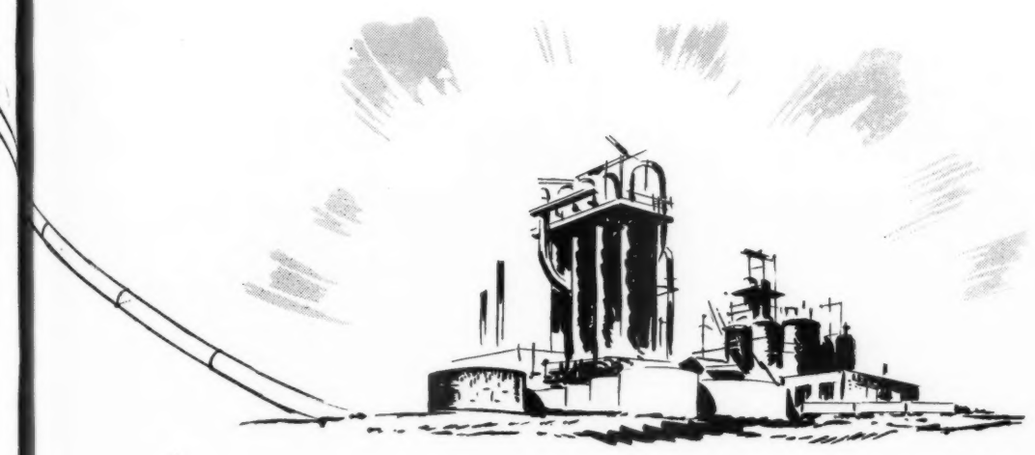
## Refiners of TARCO Products

FLUX OIL

ROAD OIL

ASPHALT

68-70 Octane Gasoline



*Modern Refinery*
*Constructed under*
*supervision*
*UNIVERSAL OIL PRODUCTS*
*Engineers*
*(Dubbs Patent)*
*Operating June 15, 1937*

# REFINING COMPANY

nt, Texas

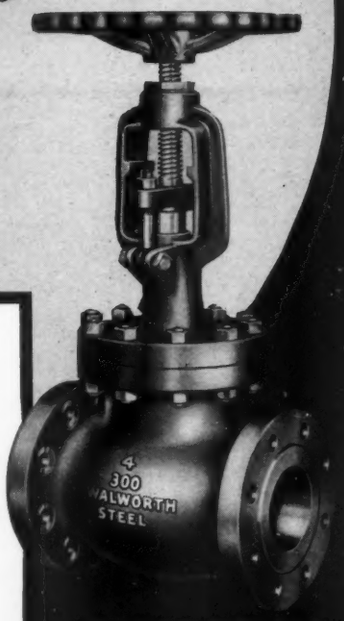
E. E. JACKSON
*Sales Manager*

# STEEL VALVES FOR REFINERY SERVICE

Walworth Series 300 Steel Gate Valves are tough and wear-resistant. Flange type seat rings combine with streamlined ports for better flow. They are the latest in gate valve construction.

These new patterns of Walworth Steel Valves were designed by our engineers with due consideration for the service to which refineries would subject them. Heavy Carbon Molybdenum Steel walls compensate for corrosion, insure long life; deep stuffing boxes eliminate leakage; oversize stems assure the utmost durability.

Walworth Steel Valves are the last word in design, metallurgy and construction. They complete our lines of valves and maintain the Walworth policy: "The correct valve for any and every service."




Walworth Series 300 Steel Globe Valves when furnished for use in the Dubbs process, combine ball-shape discs, deep stuffing boxes with lanterns, two-piece swing type gland, flange type seat rings, and other features which make them the ultimate in globe valve design.

# WALWORTH

VALVES
FITTINGS
and TOOLS
Backed by
95 Years' Service

WALWORTH COMPANY
60 EAST 42nd STREET, NEW YORK

DISTRIBUTORS IN PRINCIPAL CITIES THROUGHOUT THE WORLD

● Many refiners using the Dubbs Cracking Process . . . both in this country and abroad . . . have found it advantageous to select "Piping by Midwest".

Strategically located to serve the oil industry are three well-equipped Midwest plants . . . each manned by a highly skilled organization. The most modern piping practices (which are used by Midwest) assure highest grade workmanship, dimensional accuracy and prompt delivery.

Wherever you need fabricated piping it will be to your advantage to get in touch with the nearest Midwest office.

**MIDWEST PIPING & SUPPLY COMPANY**
**Incorporated**

*Main Office:* 1450 S. Second St., St. Louis, Mo.

Plants: St. Louis, Passaic (N. J.) and Los Angeles • Sales Offices: Chicago—946 Marquette Building • Houston—1716 Second Nat. Bank Building • Los Angeles—520 Anderson St. New York—(Eastern Div.) 30 Church St. • Tulsa—533 Mayo Bldg.

# DURAMETALLIC PACKINGS

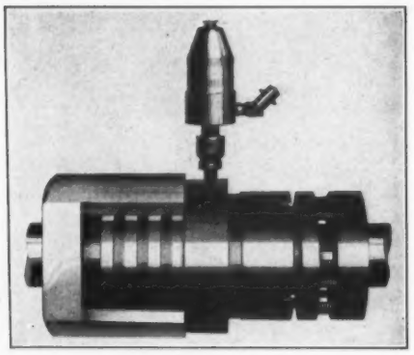
**A RELIABLE NAME . . . . A DEPENDABLE PACKING**

## DURAMETALLIC—Behind this name stand years of research and exclusive manufacture of better metallic packings for all mechanical and chemical requirements.

### DURAMETALLIC NO. D-557

**For Hot Oil and High Pressures**

DURAMETALLIC is furnished in spirals or die molded rings and in several grades and types to meet varying conditions. All styles Grade D (Aluminum base packing) are not attacked by Hydrogen Sulphide, Sulphur Dioxide or organic compounds found in petroleum.



### DURA SEAL

**For Gritty and Corrosive Conditions**

Centrifugal or rotary pumps and agitators working gritty and/or corrosive fluids, high or low temperatures, pressures and RPM's are perfectly sealed with DURA SEAL. Petroleum Light Ends; such as Propane, Butane, etc., Crude Oil, Chemicals and practically any condition not satisfactorily sealed by ordinary packings are now held with DURA SEAL. Friction surfaces reduced to 1/6 those of conventional packings. No shaft wear. No expensive sleeves needed.

### RECORDS OF SERVICE PROVE DURAMETALLIC A DEPENDABLE PACKING FOR EVERY SEALING NEED.

HOT OIL—Durametallic D-110 on centrifugal pumps and Durametallic D-557 on plunger pumps, give outstanding service. Typical service record: 5722 hours on stream, 3600 R.P.M., 650° F., 1500 lbs. pressure. No adjustments. No packing deterioration.

PROPANE—Durametallic B-572 on plunger pumps. Dura Seal, inside assembly, on centrifugal pumps. Long service and minimum wear.

SULPHURIC ACID—Dura Seal for all strengths hot or cold, up to and including 66° Be., worked by centrifugal pumps. Durametallic HB-B-410 on Sulphuric Acid Sludge reciprocating pumps.

HOT TAR—Durametallic ED-401 for reciprocating pumps. Durametallic HD-D412 for centrifugal pumps.

PRESSURE DISTILLATE—Service record: Durametallic D-412 on surge pump 29,000 hours.

CLAY OIL—Durametallic D-110 on centrifugal pumps.

CAUSTIC—On reciprocating pumps special Durametallic BE assembly. On centrifugal pumps Dura Seal for all strengths.

DOCTOR (Caustic)—One to three years service on centrifugal pumps with Dura Seal.

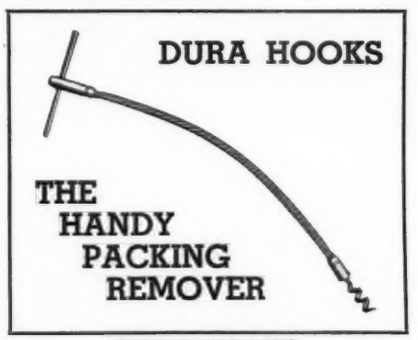
HOT PHENOL—Service record: Dura Seal 12 months, continuing. Mixture of Phenol and Waxy Lubricating Oil. 250 lbs. pressure. 600° F. 3600 R.P.M.

### DURAPLASTIC NO. B-1000

**For *Cold Oils and All Light Ends**

DURAPLASTIC is supplied in bulk or flat spirals as well as die molded rings. An important development is the new style No. 1000. This has a plastic metallic core with a crinkled, lubricated, metallic foil wrapper.

* *Efficient service up to 500° F.*




### DURA HOOKS

**A Better Way To Remove Packings**

Put an end to make-shift, time-wasting methods of removing packings by using this sturdy reliable tool for the job. Patented tool steel flexible cable enables tool to be used in those "hard-to-get-at" places. Corkscrew bits are made of specially tempered tool steel. Guaranteed not to break where used as a hand tool, no matter how severe the service. Made in six sizes. Write for descriptive literature and prices.

### FREE ENGINEERING SERVICE

Our laboratories thoroughly analyze each packing problem submitted with a view to recommending the correct style and assembly to adequately meet the need. We are not satisfied just to sell you packings but aim to provide you with the right packing. Write today for specification blanks on which to submit your packing problems. No obligation.

## DURAMETALLIC CORPORATION

**KALAMAZOO • MICHIGAN**

CHICAGO, ILLINOIS, 616 S. Michigan Ave.
Telephone Harrison 9876

COLUMBUS, OHIO, P. O. Box 432
Telephone Walnut 1149

DETROIT, MICHIGAN, 1341 Alter Road
Telephone Lennox 1668

HOUSTON, TEXAS, P. O. Box 672
Telephone Preston 4286—4287

LOS ANGELES, CALIF., 1576 W. 45th St.
Telephone Vermont 4706

NEWARK, N. J., 24 Commer St.
Telephone Mitchell 24898

NEW ORLEANS, LA., 212 Carondelet Bldg.,
Telephone Walnut 3384-J

ST. LOUIS, MO., 3908 Olive Street
Telephone Jefferson 2671

SAN FRANCISCO, CALIF., 51 Main St.
Telephone Pacific Coast Rubber Co.

TULSA, OKLA., 1509 E. 20th St.
Telephone 7231 and 37624

BELLEVUE, WASHINGTON, Box 436, R.F.D. No. 2
Telephone Lakeside 323

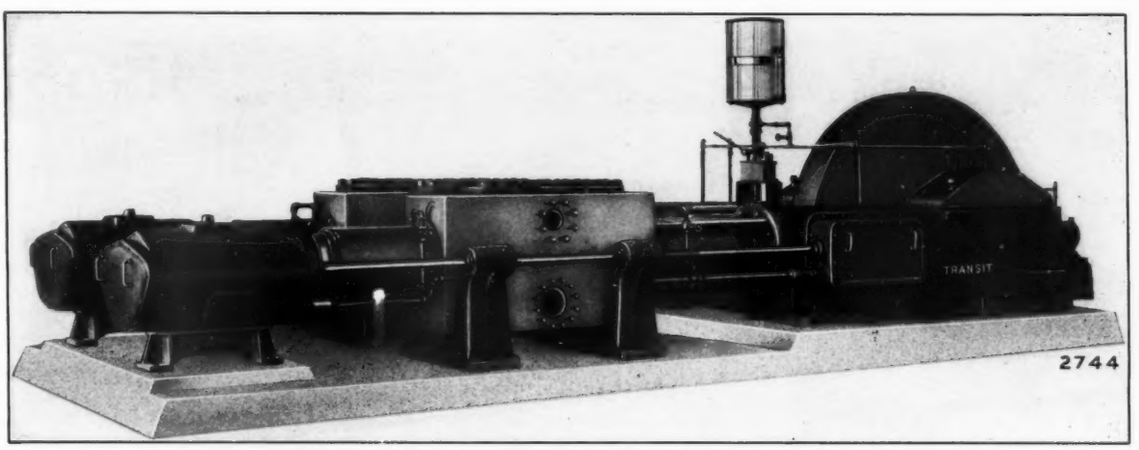
NEXT TO GOOD SHAFTS
DURAMETALLIC PACKINGS
TRADE MARK
ARE MOST IMPORTANT

# "SOMEWHERE EAST OF SUEZ,..."

In the torrid Persian Gulf, lies the little group of Islands called Bahrein.

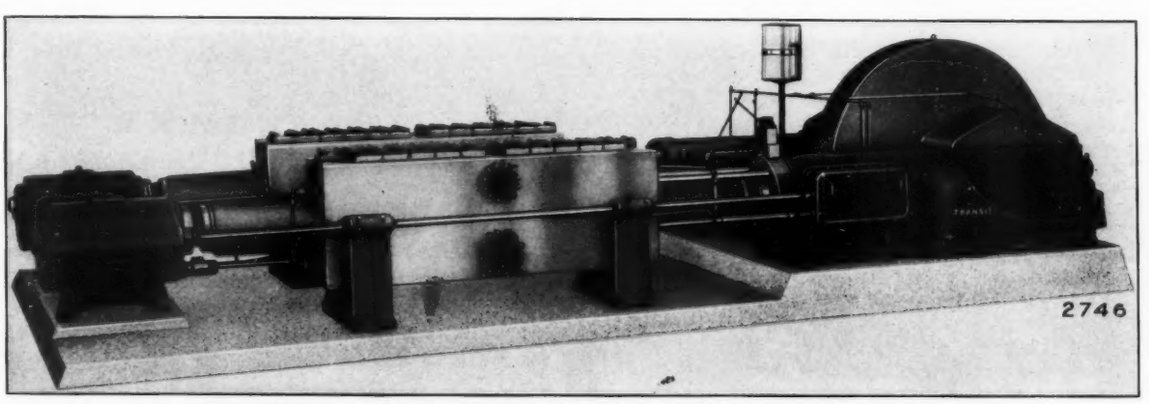
This group has already become important as an oil producing area, and a modern refinery is now being erected there for The Bahrein Petroleum Company, Limited.

The dust and the hot shifting sands, peculiar to that district, necessitated well protected pumping equipment, and we illustrate below two types of power pumps, a part of the pumping equipment, which we furnished for this installation.




Three 18" stroke Horizontal Duplex, Outside End Packed Power Pumps with forged steel liquid cylinders. ALL moving parts totally enclosed. Used for hot oil and residuum charging.

# TRANSIT POWER PUMPS




Four 24" stroke Horizontal Duplex, Outside End Packed Power Pumps with forged steel liquid cylinders, for pumping hot oil up to 800°F. ALL moving parts totally enclosed.

## NATIONAL TRANSIT PUMP AND MACHINE CO.

OIL CITY, PENNSYLVANIA

NEW YORK - PHILADELPHIA - CHICAGO - CLEVELAND - PITTSBURGH - LOS ANGELES - HOUSTON - TULSA

Frick-Reid Supply Corporation
108 N. Trenton Ave.,
Tulsa, Oklahoma

Pratt-Gilbert Company
Phoenix,
Arizona

Reeves & Skinner Machinery Co.
2211 Olive Street,
St. Louis, Missouri

F. C. Richmond Machinery Company
320-326 West Second South St.,
Salt Lake City, Utah

Standard Supply and Hardware Company
822-838 Tchoupitoulas St., New Orleans, Louisiana

TRANSIT Pump & Engine Co.,
2261 East 15th St.,
Los Angeles, California

Eugene V. Winter Co.,
320 Market St.,
San Francisco, California

# NATIONAL AIROIL BURNER COMPANY

Established 1912 —— Incorporated 1917

Industrial Oil Burners Gas Burners and Furnace Equipment

Manufacturers
Installation
Engineers
Sales - Service

NAIROIL Automatic Oil Burners for HOMES APARTMENT HOUSES CHURCHES, STORES FACTORY BUILDINGS OFFICE BUILDINGS

**Specializing in equipment for**

- Chemical Manufacturers
- Glass, Ceramic and Refractory Manufacturers
- Metallurgical Industries
- Petroleum Refining and Related Industries
- Sugar Manufacturers and Refiners
- Domestic and Intercoastal Steam Vessels
- Public Service Power Plants
- Factory Power and Heating Plants
- Lighting and Auxiliary Oil Burning Equipment for Powdered Coal Plants

**We received our first order from**
**UNIVERSAL OIL PRODUCTS COMPANY**
**on July 20, 1922**
**and**
**our most recent order from**
**UNIVERSAL OIL PRODUCTS COMPANY**
**on May 14, 1937**
**with**
**158 orders from them**
**during these 15 years**

**In 1936 our shipments of similar equipment went to 37 States of our own Country and 18 Foreign Countries on 5 Continents**

## NATIONAL AIROIL BURNER COMPANY

**Offices and Salesrooms**
**1325-27 GIRARD AVE.**

**Factory**
**L ST. & SEDGLEY AVE.**

**PHILADELPHIA, PA.**

# *Parsons built them all*

## —AND OTHERS

They are all Dubbs units—and Dubbs units make money.

Parsons will put you in the money whether you need a whole refinery, a big Dubbscracking unit, or a little one.

Or any other kind of a refining unit, large or small.

It will cost you nothing to find out what Parsons can do for you.

PARSONS

**THE RALPH M. PARSONS CO.**

CHICAGO LOS ANGELES NEW YORK

ASSOCIATED WITH

**H. A. BRASSERT & COMPANY**

CHICAGO LONDON

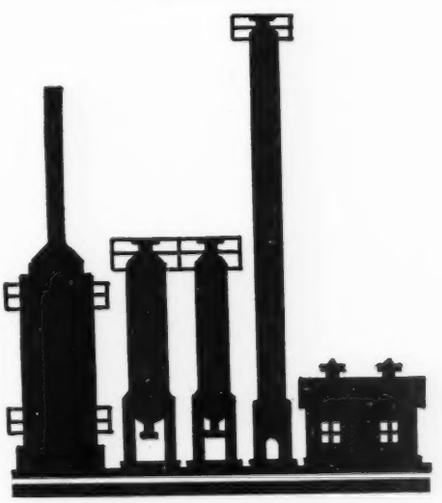
**THE SMALLEST**

Big West Oil Company
350—now 750 barrels a day

**THE NEWEST**

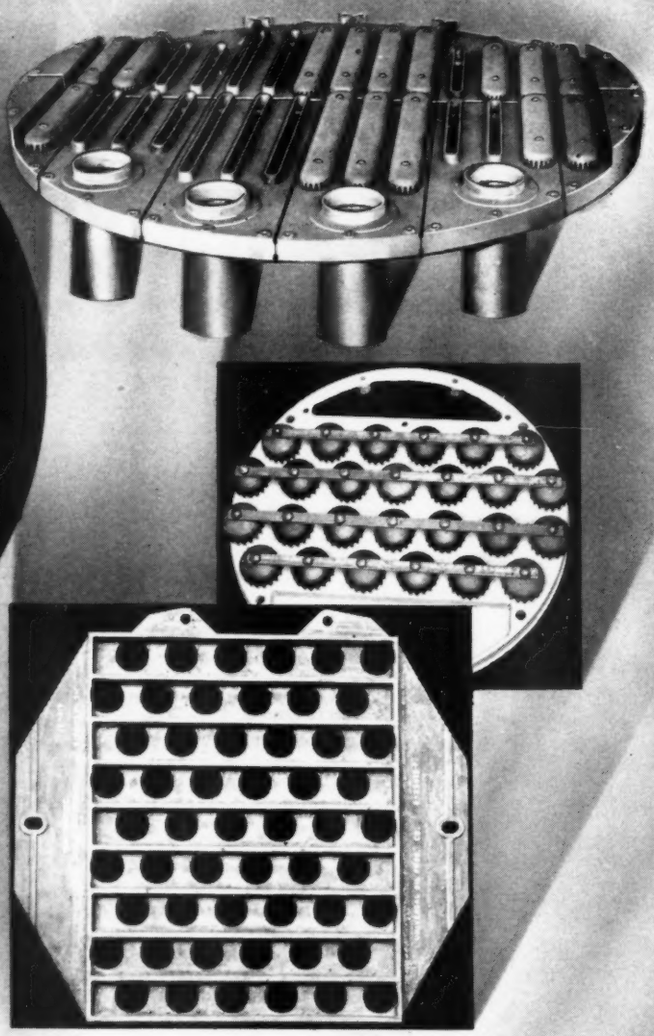
Leonard Refineries, Inc.
1500 barrels a day

**THE BIGGEST**



Wilshire Oil Company
15,000 barrels a day

# BANNER *Dependable* FOUNDRY WORK



## *Pays Returns in the Field*

SINCE the first Dubbs Process still was erected in 1921, Banner Iron Works has supplied internal equipment and tube supports for Universal Oil Products installations the world over. From that day to this by far the majority of such equipment in Dubbs stills has been furnished by Banner.

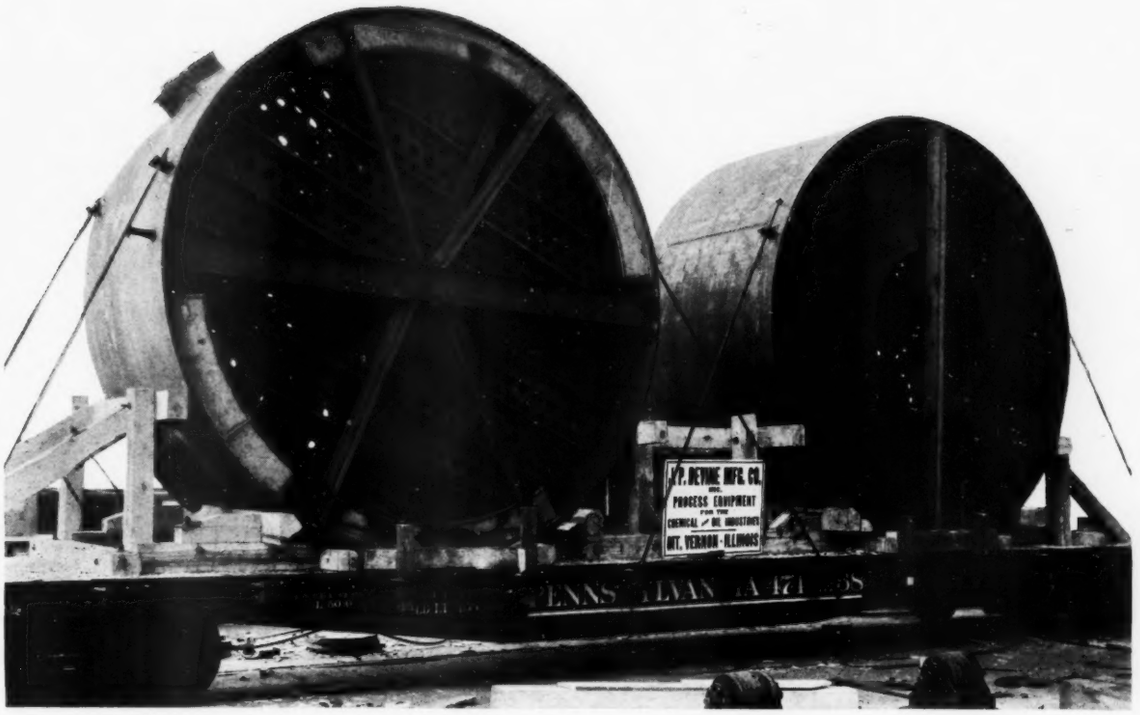
Banner Iron Works is particularly well qualified by experience, facilities and by years of close association with U. O. P. engineers to produce still equipment of high quality, precision manufacture and dependable performance.

**MEEHANITE METAL** has proven a most desirable iron for Oil Refinery castings subjected to heat. Banner specialties include Meehanite or grey iron tube supports, dampers, doors and frames; bubble trays, bubble caps, downpipes, traps, side to side pans and other equipment castings. Banner castings are held to such close tolerances that in most cases no machining is necessary.

Banner refinery castings have stood the exacting tests of the industry. They are to be found in practically every country in which oil is refined — often in remote districts where lack of facilities makes it essential that refinery equipment fit the specifications exactly and give long and efficient service. Day after day Banner dependability is paying returns in satisfactory field performance.

If you have a casting problem, write to Banner. Our experience and facilities are at your service.

**4560 SHAW AVE.** **BANNER IRON WORKS** **ST. LOUIS, MO.**




*An all-welded steel bubble tower, 84 feet 3 inches high, 15 feet 3 inches in diameter*
*Shipped in sections, two sections to the car*

## TO BUILD CRACKING UNITS USE THE BEST EQUIPMENT—YOU'LL GET IT WHEN YOU

# *Specify Devine*

Our business is to design and build the equipment that goes into the construction of cracking units and other refining units—and we know how.

We build fractionating towers, heat exchangers, condensers, coolers to your specifications or to our own—of carbon steel, high tensile steels or alloy steels—solid or clad.

## *Specify Devine*

**Devine**
**REFINERY EQUIPMENT**

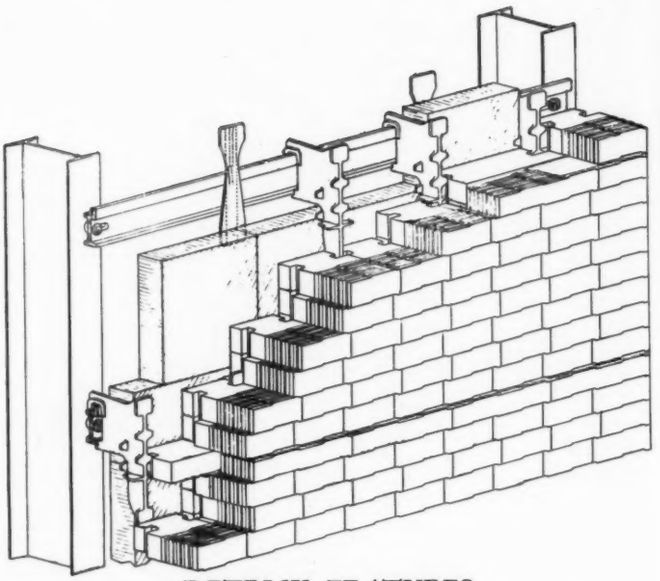
*The J. P. DEVINE MANUFACTURING CO., INC., MT. VERNON, ILLINOIS*

New York
205 E. 42nd St.

San Francisco
The Merrill Company
343 Sansome St.

# *Cracking makes better gasoline—*

# *Detrick makes better arches and walls*



*DETRICK FEATURES*

*Intermeshing Faces—Air Leakage Eliminated—Spalls Held in Place —Tile One-half Former Size—Staggered Joints—86% One Shape of Tile—Easy to Install and Repair—Block or Loose Insulation—Install from Inside or Outside—Castings Properly Heat Drained—Provides for Expansion and Contraction*

IN many Dubbs cracking units, Detrick Arches and Detrick Suspended Walls have been installed and are giving satisfactory service.

Cracking operation means severe punishment to the furnace, whether fired with oil or gas. The severity of the punishment has increased with the size of the furnace.

Detrick Suspended Construction is important even in small and medium size furnaces . . . in the great cracking units of today it is a necessity.

Detrick Arches and Detrick Walls are relied upon to stand up to the severe duty of present-day cracking . . . and they do.

Detrick Arches and Walls satisfy the specifications of the Universal Oil Products Company.

Many refining engineers build their furnaces to Detrick standards and insist upon Detrick specifications.

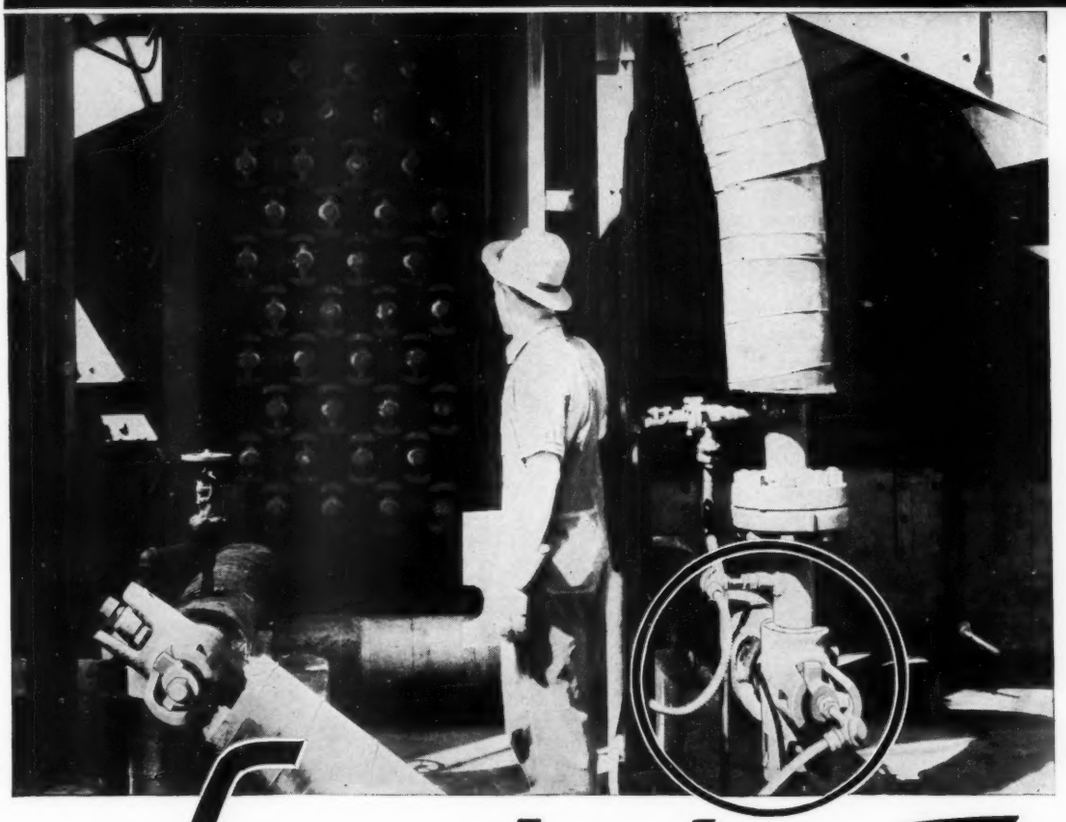
You ought to specify Detrick products, too—and get them.

# *M. H. DETRICK COMPANY*

*140 S. Dearborn Street* *Chicago, Illinois*

*Offices in principal cities throughout the world*

# KEY REFINERY FITTINGS



● Illustrated is an installation of Key Series 3600 sectional type Return Bend Fittings on the convection section of a furnace of the Cushing Refining and Gasoline Company, Cushing, Oklahoma. Note thermowell plug in cross-over fitting. These special plugs are interchangeable with regular closure plugs and can be installed wherever desired.

*Showing closure plug and thermowell assembly.*

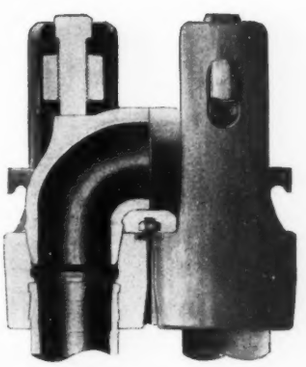
# Lead the Field!

SINCE 1916 Key has been identified with every advance in the development of fittings for heating coil construction—for more than twenty years Key has pioneered in the design and development of fittings that insure highly efficient service for high and low pressure and high and low temperature heating coils. Key Refinery fittings are in use throughout the world, and we are proud of the fact that Key equipment is in use in so many Dubbs Process units of Universal Oil Products Company.

Key Series 3600 Return Bends are adaptable to high and low pressure operations with temperature limitation of 1025°. A sectional streamline fitting, it consists of two tube ends individually attached to furnace tubes by rolling and connected by means of a removable U-bend. Its construction provides an unrestricted flow of oil, decreases pressure drop and turbulence to a minimum, and thus prolongs the life of fittings and tubes. The removable U-bend provides easy access for tube cleaning and inspection.

Safety and quick access are important features of every Key fitting, and Key can furnish a fitting for every requirement.

Key field engineers are always available to supervise the installation of fittings, the rolling of alloy or carbon steel tubing and to correctly instruct your operating forces in the most modern methods of stripping, cleaning and heading up. Key also offers a unique reconditioning service, now available in a fully equipped mobile machine shop whereby old fittings can be reconditioned without removal from tubes.



*Cross-section view, showing details of construction of Key Series 3600 Return Bend.*

Write to Key for any information concerning your refinery fitting problems.

KEY COMPANY

**2681 McCASLAND AVENUE - - - - - - - - EAST ST. LOUIS, ILL.**

# MUSKEGON BOILER WORKS

## Builders and Fabricators of

Fractionating Towers
Stills
Tanks
Pressure Vessels
Welded or Riveted Steel Stacks
Oil and Gas Separators
Special Fabricated Plate Work
Structural Steel for Furnaces.

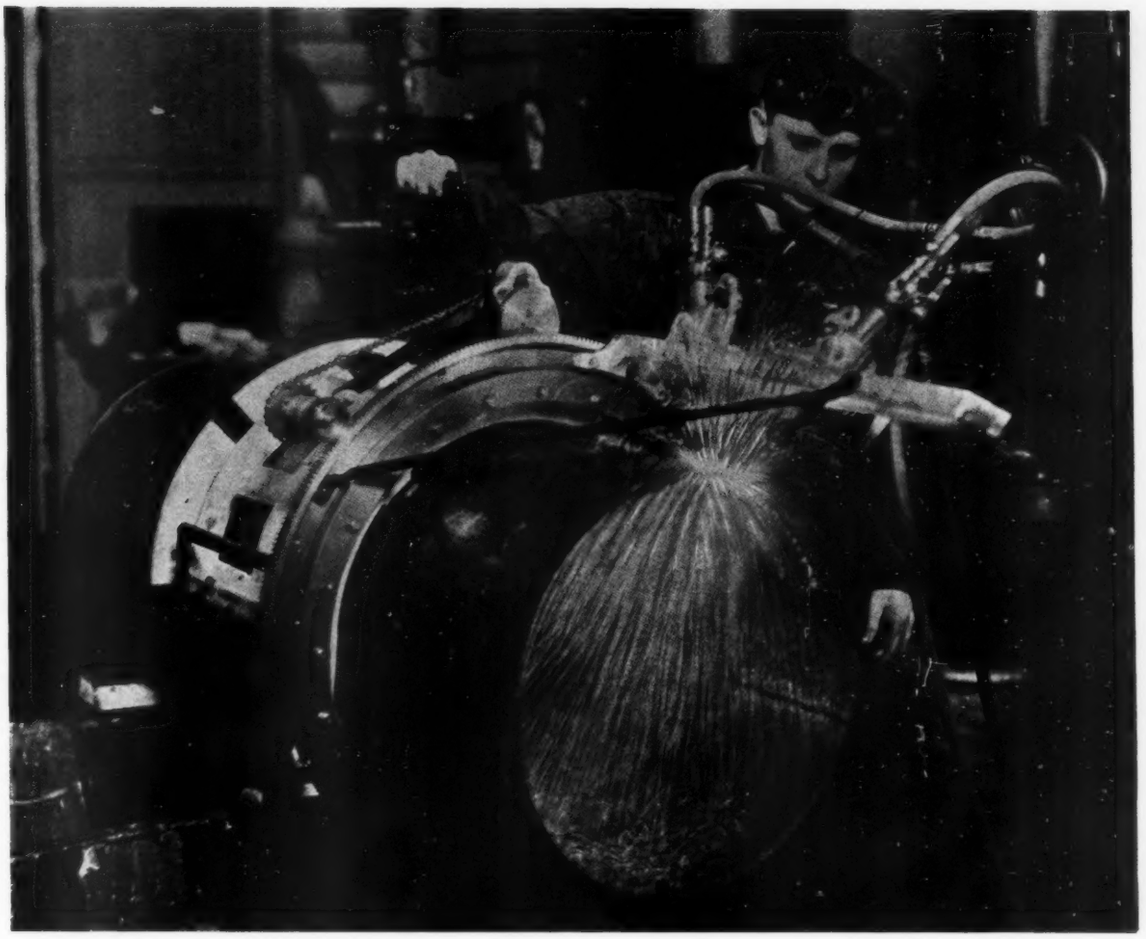
*We are furnishing Fabricated Steel Plate Work and A. P. I.— A. S. M. E. class No. 2 Electric Welded Pressure Vessels for Dubbs Cracking units.*

## Muskegon Boiler Works

Established 1865 Muskegon, Michigan

CIG

*Use the*
**CIG PIPE CUTTING AND BEVELING MACHINE**
*for*



## SPEED AND ECONOMY IN CUTTING AND BEVELING PIPE

- ***It's Portable*** — Constructed of Aluminum, the CIG Pipe Cutting and Beveling Machine can be carried easily by one man from one section of pipe to another.
- ***It's Easily Assembled*** — Shaped like a horseshoe, the machine slips easily over the pipe. A chain fastener rigidly secures the machine to the pipe and quickly adjusted spacer bolts permit rapid adjustment to different sizes of pipe.
- ***It's Speedy*** — A snap of the chain fastener — A spark to the Torch or Torches — A few turns of the hand crank and in 2 minutes a complete cut and bevel can be made in a 12″ pipe.
- ***It's Versatile*** — 3 sizes of standard machines will cut pipe from 4 inches to 20 inches in diameter. Machines for cutting larger pipe made to order. One or two torches can be used to cut any desired bevel.
- ***Time Saving*** — Because it is quickly assembled in the field and does not have to be re-assembled when moved from one section of pipe to another.
- ***Money Saving*** — Because it cuts pipe with one half the labor and gas required to cut the same amount of pipe by hand.

**AND WHAT'S MORE — CIG HAS COMPLETE STOCKS OF LITERALLY EVERYTHING FOR GAS AND ELECTRIC WELDING AND CUTTING AT ITS 30 OFFICES, LOCATED THROUGHOUT THE UNITED STATES**

***Send for Illustrated Circular***

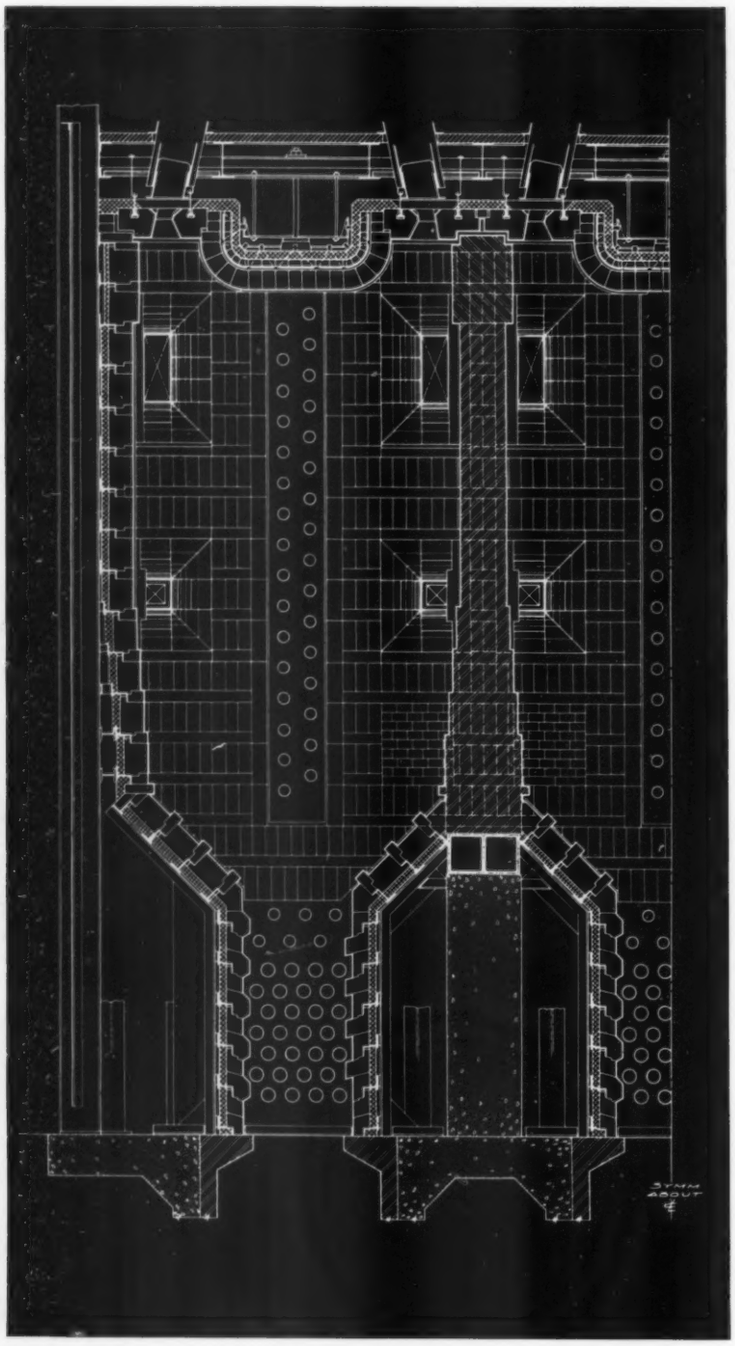
## COMPRESSED INDUSTRIAL GASES, INC.

221 North La Salle Street Chicago, Illinois

*Other offices and warehouse stocks in the following cities:*

Atlanta, Georgia
Charlotte, North Carolina
Chattanooga, Tennessee
Dallas, Texas
Detroit, Michigan
El Dorado, Arkansas
Evansville, Indiana
Fort Smith, Arkansas
Fort Worth, Texas
Grand Rapids, Michigan
Jacksonville, Florida
Kalamazoo, Michigan
Kenosha, Wisconsin
Knoxville, Tennessee
Lansing, Michigan
Little Rock, Arkansas
Los Angeles, California
Milwaukee, Wisconsin
Monroe, Louisiana
Nashville, Tennessee
Odessa, Texas
Oklahoma City, Oklahoma
Pittsburgh, Pennsylvania
Rodessa, Louisiana
Shreveport, Louisiana
Tampa, Florida
Tulsa, Oklahoma
Tyler, Texas
Wichita, Kansas
Wichita Falls, Texas

***If it's for Welding or Cutting — We have it***



*Half End Elevation of 3-Cell Equiflux Furnace showing Unit-Suspended Construction having the following*

## FEATURES

1. Minimum height blocks facilitating conformity to irregular contours.
2. Minimum height of joints increasing tightness.
3. Minimum amount of refractory suspended in each bracket course, eliminating cumulation of loading and expansion.
4. Reduced expansion per unit eliminates special packed expansion joints . . . a frequent source of air leakage.
5. Unit suspension means individual replacement of tile without disturbing neighboring tile or structure.
6. All tile are directly in contact with and definitely supported by metal brackets.
7. Special radial and flared door tile blend into the wall units and are definitely tied into and supported by the wall structure.
8. Small units facilitate location of baffle tile where needed.

# These DUBBS licensees are users of

# BIGELOW-LIPTAK

## ARCH AND WALL CONSTRUCTION

BURMAH OIL CO., LTD.
CIE DES PETROLES DE LA GIRONDE
CIE DES PETROLES DU NORD
CONTINENTAL OIL CO.
DEEP ROCK OIL CORP.
INDEPENDENT OIL & GAS CO.
(Phillips Petroleum Corp.)
JOHNSON OIL REFINING CO.
LLOYD'S REFINERIES, LTD.
McCLANAHAN REFINERIES, INC.
SHAMROCK OIL & GAS CORP.
SHELL PETROLEUM CORP.
STEAUA ROMANA
TALCO ASPHALT & REFINING CO.
TRINIDAD LEASEHOLDS, LTD.
WHITE STAR REFINING CO.
(Socony-Vacuum Oil Co.)
WILSHIRE OIL CO.

●

**BIGELOW-LIPTAK CORPORATION**
2842 West Grand Blvd. • DETROIT, MICHIGAN
*OFFICES IN PRINCIPAL CITIES*

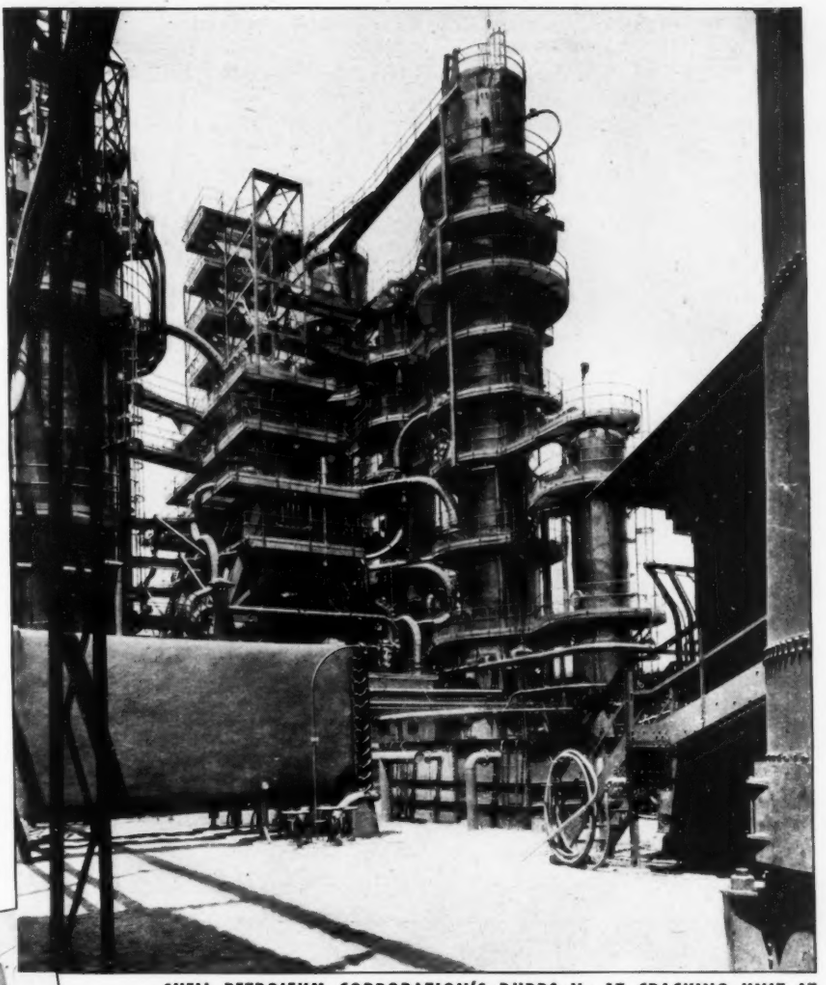
# HEAT WASTE CUT

*almost to Zero!*

## with EAGLE Super "66" and other Eagle Insulating Materials

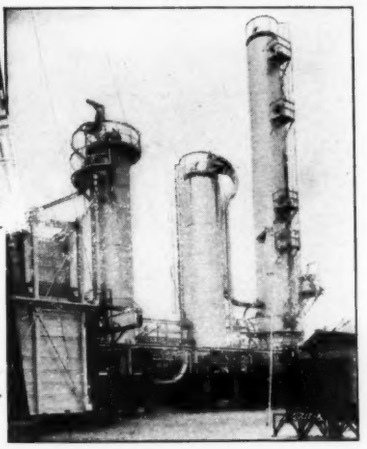
● Operating efficiency of refinery units steps up when Eagle Insulating Materials are applied to towers, exchangers, stills, steam and oil lines. Eagle products are setting remarkable service records throughout the oil fields, both on efficiency and durability.

Call in Eagle-Picher to help you design an effective, low-cost installation on your next unit. Our Contracting Division will be glad to work with your engineers in solving your special insulating problems. If you like, they will also assume complete responsibility for applying the materials.



**SHELL PETROLEUM CORPORATION'S DUBBS No. 17 CRACKING UNIT AT WOODRIVER, ILL.** Tower and Exchangers are insulated with Eagle Super "66" Plastic Insulation and weatherproofed with Eagle Insulseal. All steam lines are covered with Eagle Style "77" Rock Wool Pipe Covering and weatherproofed with a 24-gauge copper bearing galvanized metal jacket, field fabricated.

**EASTERN STATES PETROLEUM UNIT AT HOUSTON.** Completely insulated with Eagle Materials. Furnace walls, towers and fittings are insulated with Eagle Super "66" and weatherproofed with Eagle Insulseal. Stacks and breechings lined with Eagle "111" High Temperature Insulating Cement. All lines, both oil and steam, are heatproofed with Eagle "77" and weatherproofed with 28-gauge metal jackets, field fabricated. Structural steel supports are fireproofed with Eagle Fireproofing.



**BARNSDALL REFINING COMPANY UNIT AT WICHITA.** All towers and exchangers are covered with Eagle Super "66" Plastic Insulation. (Note expansion joints.) Hot oil lines are covered with Eagle "77," steam pipes with magnesia. Entire installation by Eagle-Picher Contracting Division.

# EAGLE
## INSULATION SERVICE FOR OIL REFINERIES

### EAGLE-PICHER offers a complete line of Insulating Materials for Refineries . . . including

**Eagle Super "66" Plastic Insulation.** Easy-to-apply one-piece insulation for temperatures as high as 1800°. Extremely high coverage—minimum shrinkage.

**Eagle Blanket Insulation.** For temperatures to 1200°. For towers, boilers, breeching, stills, ovens.

**Eagle Insulseal (waterproofing cement).** Durable, elastic coating protects insulation against exposure.

**Eagle "77" Pipe Covering.** For hot lines with temperature up to 1200°. Flexible—easy to apply.

**Eagle "111" High Temperature Insulating Cement.** For temperatures between 1800 and 2300°. Semi-refractory properties. Easy to apply.

**Eagle-Picher also offers Eagle Lead Wool, Rope Socket Metal, Chemical Lead Pipe, Chemical Sheet Lead and a complete line of Bearing Metals and Solders.**

THE EAGLE-PICHER LEAD COMPANY,
Dept. OG5, Cincinnati, Ohio

Please send me, free, your illustrated booklet, "Effective Heat Insulation."

*Name* _____

*Address* _____

*City* _____ *State* _____

# Around the World with Universal

SINCE 1925

*Every year more and more*

**ANY REFINERY DEVELOPMENTS CAN BE ACCOMPLISHED WITH SMITH VESSELS**

A.O. SMITH
CORPORATION

MILWAUKEE, WISCONSIN • *DISTRICT OFFICES:* NEW YORK, CLEVELAND, CHICAGO, TULSA, HOUSTON, LOS ANGELES

**PIONEER OF ELECTRIC WELDED PRESSURE VESSELS**
Lined or Unlined

ARGENTINA
BELGIUM
BORNEO
CANADA
CZECHOSLOVAKIA
DUTCH WEST INDIES
DUTCH EAST INDIES
EGYPT
FRANCE
GERMANY
HOLLAND
INDIA
ITALY
JAPAN
MEXICO
PERSIA
RUMANIA
RUSSIA
SWEDEN
TRINIDAD
WALES
AND EVERY REFINING CENTER IN THE U.S.A.

# *Around the world*

## with

# UNIVERSAL OIL PRODUCTS COMPANY

• • •

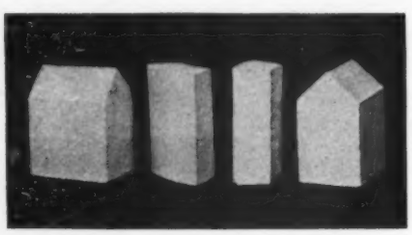
INTO many a foreign port, deep in the jungles and trackless wastes where oil has led adventurous men, A. P. Green fire brick have followed. When refineries are thousands of miles from their source of supply, when the success of their enterprise depends upon trouble-free operations—and refractory failures can mean months of delay, it is only natural that they look to the A. P. Green Fire Brick Company for Quality products that they can trust.

Oil still firing tunnels are an inferno of heat—a vicious bottled-up, soaking heat, too severe for ordinary refractories. The A. P. Green Company, in co-operation with U. O. P., developed a special firing tunnel mix. Now the need for a non-shrinking, non-spalling, high-fusion brick with extra load-bearing properties and resistance to flame impingement, has been met—with an A. P. Green Product.

Uniformity is another refinery requirement—another reason why products of "The World's Most Advanced Fire Brick Plant" go around the world with U. O. P. Making special shapes accurately is an A. P. Green specialty. Our extra careful clay selection, new humidity-type dryers, accurate tunnel kiln burning, rigid loading dock inspection, and extra precautions in packing for ocean and domestic shipments, are guarantees of refractory Quality.

In the refinery industry another type of refractory is coming rapidly to the front—insulating fire brick. A. P. Green G-25 Insulating Fire Brick now have their place in many new stills, giving more even and accurate heat distribution and control. They're made of first quality Missouri fire clay. They won't shrink, crack, spall, or crumble in service where the recommended temperature of 2500° F. is not exceeded. The light weight of G-25 makes them ideal for suspended wall construction, and their insulating properties make thinner walls practical.

In the complete line of A. P. Green Products, from our first quality brick EMPIRE (the standard of refinery specification for many years) through our super-duty and high alumina bricks, our refractory specialties and our insulating fire brick, there is a material for every need. The largest stock of refractories, the manufacturing facilities of this modern plant, our world-wide sales organization are at your service.



Not tombstones—yet these A. P. Green shapes mark the demise of refractory trouble in U. O. P. firing tunnels.

•

A. P. Green Products have recently gone into U. O. P. jobs in these places:

Suez, Egypt
Digboi, India
Bahrein Island, Persia
Rangoon, India
Brazi, Roumania
Pernis, Holland
Tjepoe, Java, D E I
Port Credit, Canada
Owen Sound, Canada
Pointe-a-Pierre, B W I

•

## A. P. GREEN FIRE BRICK CO.

**MEXICO, MISSOURI, U. S. A.**

47

**A. P. GREEN PRODUCTS SERVE THE WORLD'S INDUSTRIES**

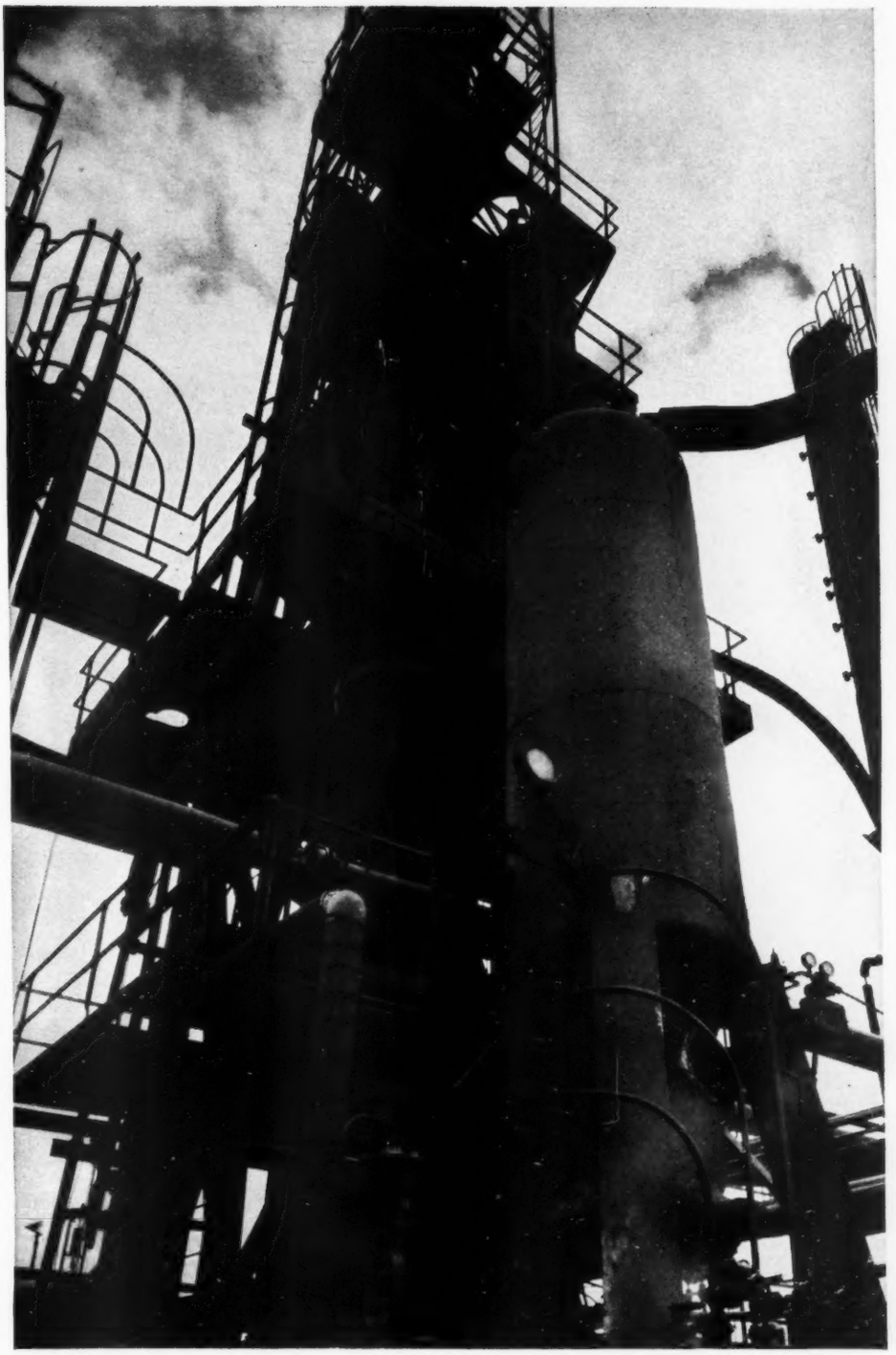
# Guardians of Operating Efficiency!

***On Dubbs Units throughout the world, J-M Insulations provide permanent protection against the costly heat losses that lower operating efficiency and raise production costs***

THAT the use of J-M Insulations in Dubbs Units is a profitable investment in operating economies and effectiveness is a matter of proved record. Since the day these materials were used in the first Dubbs Unit, many thousands of dollars have been similarly invested by refineries all over the world.

The completeness of this line of insulations makes it possible to choose the J-M materials *designed* to assure maximum insulating efficiency on every part of the Dubbs Unit.

And the provision of the right insulations for Dubbs Units is but a part of Johns-Manville's service to the oil industry.



● **THROUGHOUT THIS EXPERIMENTAL PILOT PLANT** *of The Universal Oil Products Co., at Riverside, Ill., J-M Insulations are used to assure the same economies and efficiency expected of their Dubbs Units in actual operation. Furnace walls are insulated with J-M Superex Blocks. J-M Sil-O-Cel C-3 Concrete is used under furnace hearths. J-M Insulating Cements on towers, reboilers, columns, heat exchangers, etc. J-M 85% Magnesia on steam lines. And other J-M Insulations on air ducts, breechings, hot oil lines, reaction chambers, etc.*

Over the period of the last 79 years, Johns-Manville research and practical experience on insulation problems have resulted in the development of proper insulating materials for *every* type of oil-refinery equipment operating at temperatures from 50° F. below zero to 2500° F. above. Johns-Manville, 22 East 40th St., N. Y. C.

## Johns-Manville SERVICE TO THE JM OIL INDUSTRY

# GAS DESULPHURIZATION

•

## FOR EFFECTIVE AND ECONOMICAL REMOVAL AND RECOVERY OF

# HYDROGEN SULPHIDE

THE GIRBOTOL PROCESS★ is the most effective means yet developed for removing and recovering Hydrogen Sulphide from refinery and natural gases—*and the most economical.*

The Process is simple and cyclic. The equipment is standard, relatively small, and inexpensive. There are no undesirable side reactions. The reagent is non-inflammable and non-corrosive to ferrous metals. It is easily reactivated, with virtually no loss. It has been proven by more than seven years of actual use.

Some of America's leading oil companies have found The Girbotol Process the best way to purify refinery gases before polymerization. . . . Gas companies are finding it the best way to sweeten natural gas before delivery to the pipe line.

We will gladly send a complete description of the Girbotol Process, together with an estimate of investment and operating costs for your particular operation. *Write,* giving quantity of gas to be treated, acidic gas content, gas temperature and pressure. No obligation, and no high-pressure "follow-up".

★ ***The Girbotol Process, a liquid purification process covering the use of certain reagents for the removal of Hydrogen Sulphide and other acidic gases from gaseous mixtures, is both broadly and specifically protected by U. S. Letters Patent Re. No. 18,958, and other U. S. and foreign Letters Patent, owned and licensed solely by The Girdler Corporation.***

---

# THE GIRDLER CORPORATION

*Incorporated*

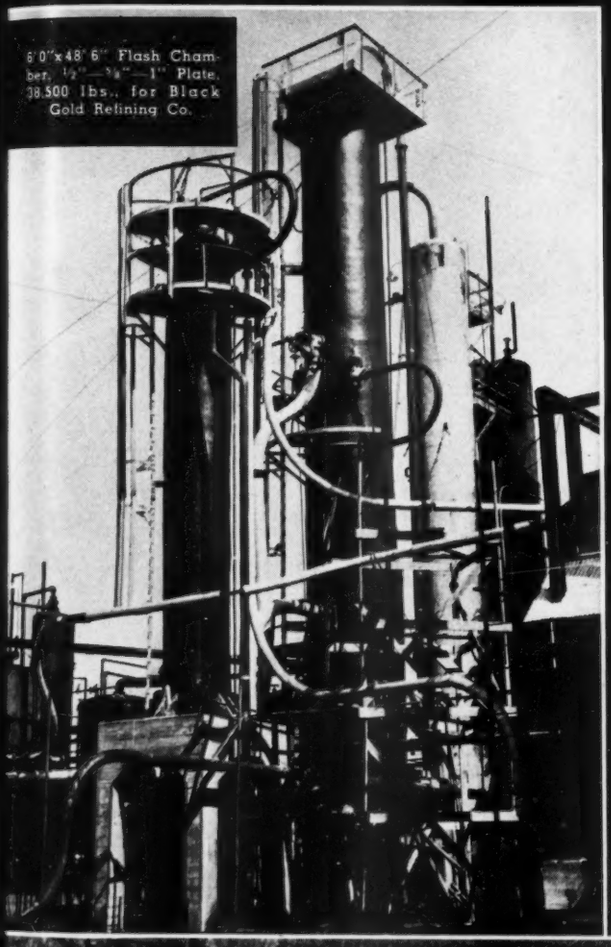
*Gas Processes Division*

LOUISVILLE • KENTUCKY

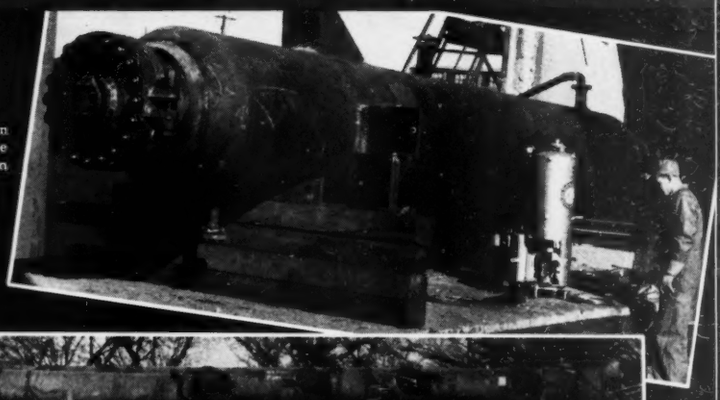
# B.S.&B. ~ A.P.I. ~ A.S.M.E.

## for U.O.P.

B.S.&B. Pressure Vessels are built to highest code standards. Flexwelded, X-Rayed and Stress-Relieved. Our welding is approved by Hartford Steam Boiler Inspection and Insurance Company. The keen eye of our X-Ray discloses the smallest flaw, keeping our welding procedure up to highest efficiency. B.S.&B.'s own metallurgical laboratory is fully equipped with physical, chemical and micrographic facilities, supervised by a trained metallurgical staff. Here are pictures of the kind of jobs we are doing for U.O.P.

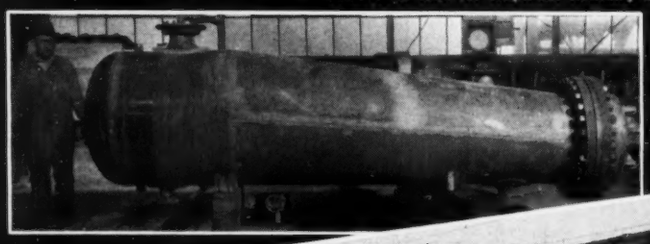


6'0"x48'6" Flash Chamber, ½"—⅝"—1" Plate, 38,500 lbs., for Black Gold Refining Co.

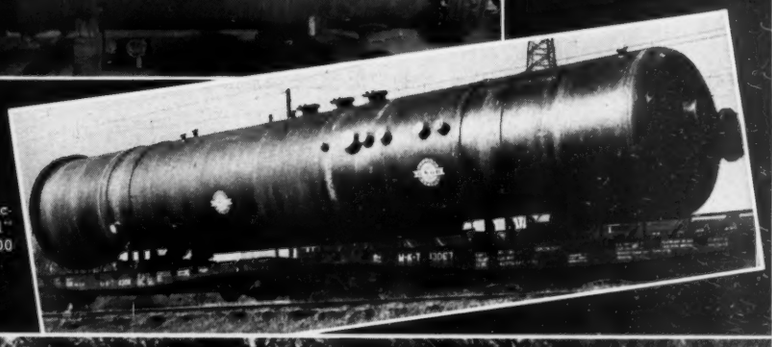


36" x 20'0" Reaction Chamber 1¼" Plate 14000 lbs., for Dr. Born of Tulsa.

30" x 32'2" Stabilizing Column ⅛" Plate 9500 lbs.; 30" x 11'0" Stripping Column, ⅜" Plate 2700 lbs., for Naph-Sol Refining Co.



44"x12'6" Reboiler ¾" Plate 10,200 lbs., for Cushing Refining & Gasoline Co.



12'6"x75'6" Retractionating Tower, 1"—1¼" Plate 217,000 lbs., for Cosden Oil Co.

5' & 6' x 88'5" Flash Fractionating Column ½"—¾"—1 1/16" Plate, 60,000 lbs., for Naph-Sol Refining Co.

BS&B

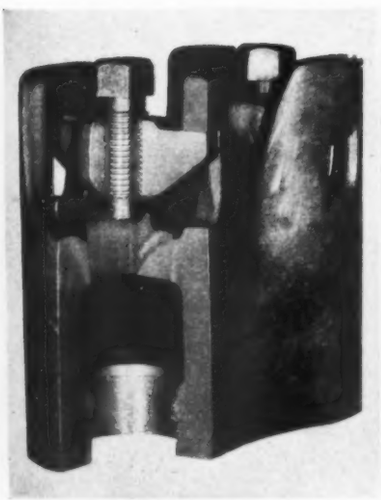
# Black, Sivalls & Bryson

(INC.)

OKLAHOMA CITY

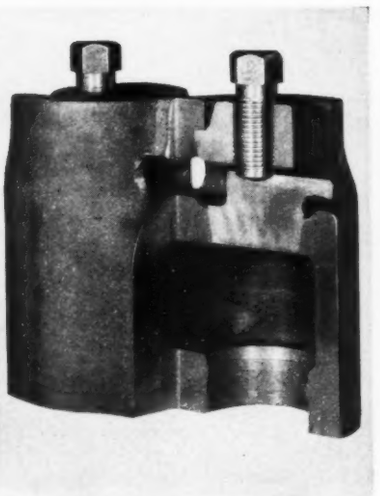
ASK YOUR B.S.&B. MAN

# SIVYER Return Bends and Castings for Heat, Pressure and Corrosion Resistance

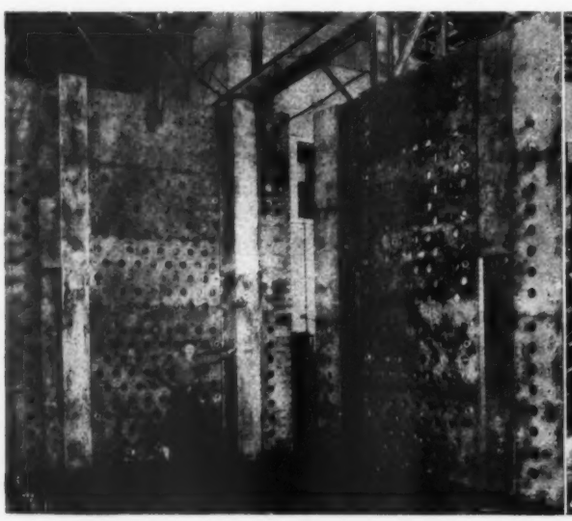


Sivyer Mule-Ear Top Header

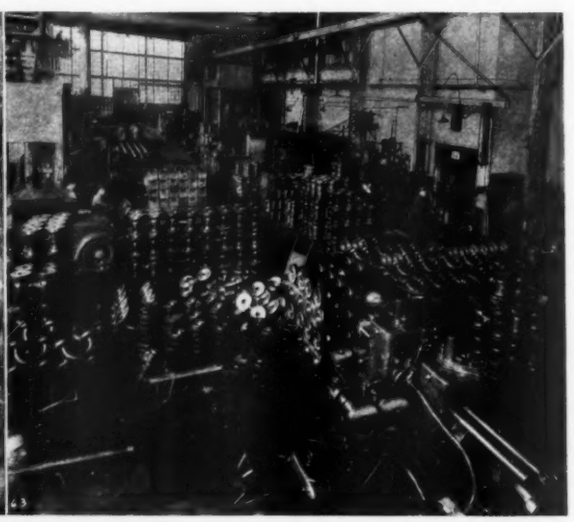
Sivyer Safety Uniflow Return Bend



Sivyer Horseshoe Top Header



Heat-resisting Tube Supports Assembled in Sivyer Shop to Insure Easy Installation

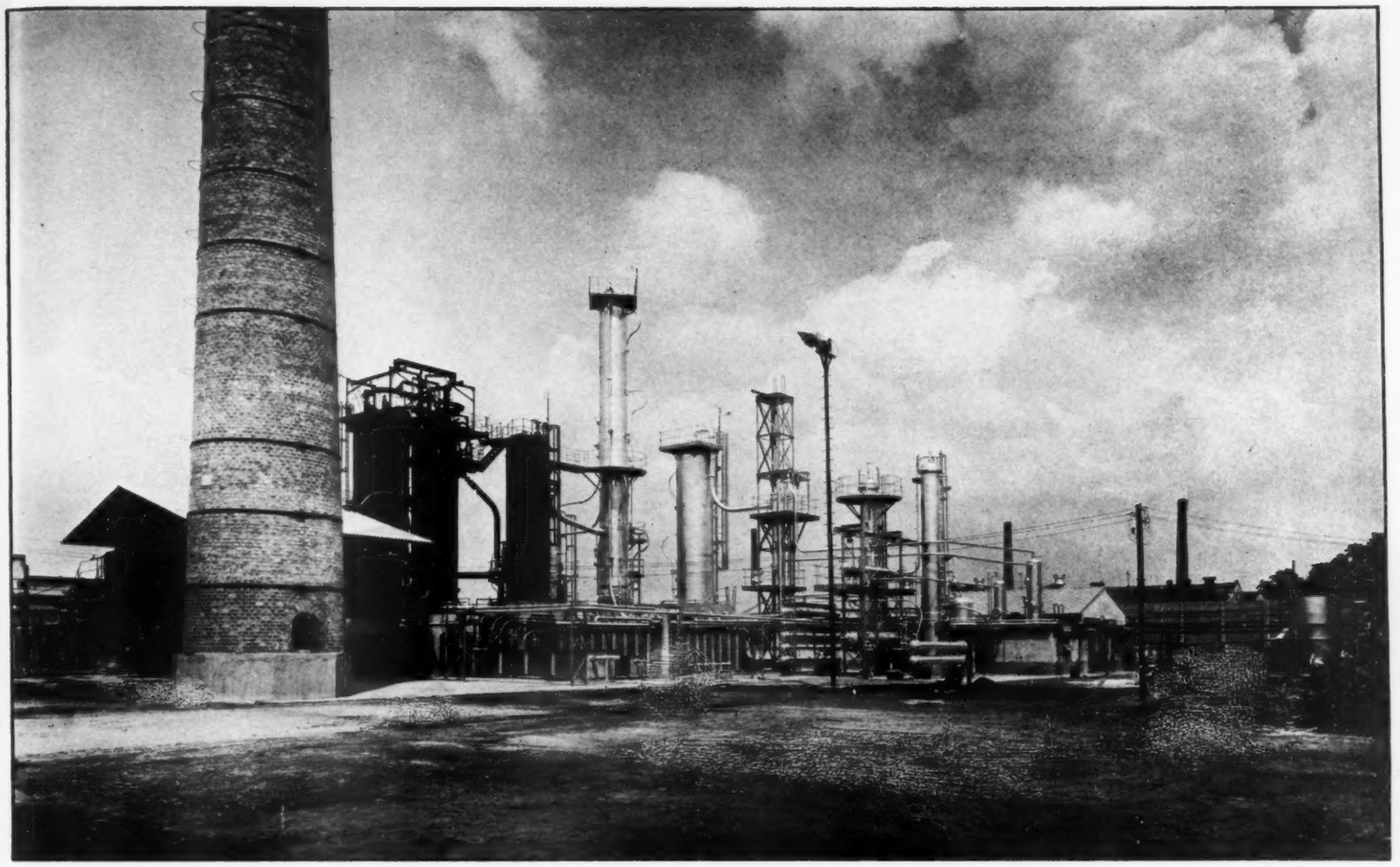


Special Fittings for High Pressure Steam and Oil Being Finished in the Sivyer Machine Shop

*Refinery Division*

**SIVYER STEEL**

**SIVYER STEEL CASTING COMPANY, MILWAUKEE, WIS.**



*Apollo Dubbs unit at Bratislava, Czechoslovakia*

# LATEST DUBBS LICENSEE CHOOSES "PRECISION" LABORATORY EQUIPMENT

THE TALCO ASPHALT & REFINING COMPANY in buying "Precision" testing apparatus for their new refinery laboratory at Mt. Pleasant, Texas, have followed the wise judgment of many other Dubbs licensees throughout the country.

*"Precision" laboratory equipment is on the approved list of specifications of Universal Oil Products Co.* It represents the most up-to-date and approved laboratory practice, because "Precision" engineers not only know petroleum technology, but the intricacies of good apparatus design to save lab men's time and boost the attainable accuracy of results.

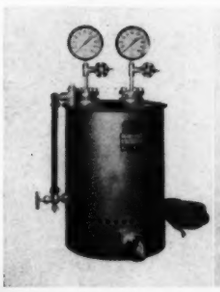
The best laboratory equipment that money can buy is cheapest in the long run. That's why leaders in the petroleum industry insist upon "Precision."

*"Precision" apparatus conforms rigidly to A.S.T.M. specifications.*

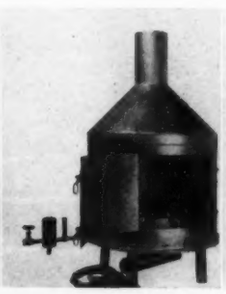
"Precision" Universal Penetrometer—the most widely used instrument of its type in the petroleum industry.

Triple-Unit Refrigerated Gasoline Distillation Apparatus.

"Precision"-Saybolt Viscosimeter, available in 1, 2 and 4 unit models.

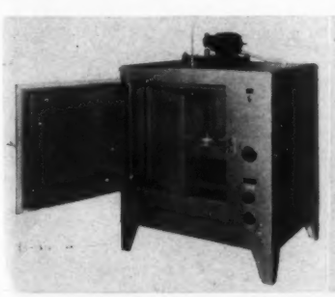


Constant Temperature Bath containing two bombs for accelerated oxidation test of gasoline.

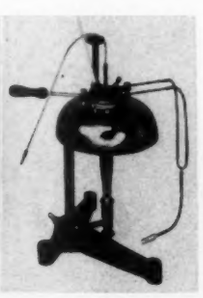


"Atlantic Refining" Type Gum Test Bath in vapor hood, for gasoline corrosion determinations.

Flush Mounting Constant Temperature Bath with bombs for Reid Vapor Pressure Test of gasoline.



"Precision" Freas Revolving Shelf Constant Temperature Oven for asphalt drying.



Gas Heated Pensky-Martens Flash Tester bearing several noteworthy "Precision" structural refinements.

**PRECISION SCIENTIFIC CO.**

*Designers and Mfrs. of Better Laboratory Equipment*

1736-54 N. Springfield Ave., Chicago, Ill., U. S. A.

# DIAMOND GRATING

IS

REVERSIBLE. No Wrong Side.
A Non-Slip Walking Surface Either Way.

MACHINE RIVETED for Strength and Rigidity.

TAILOR-MADE. Cut to Fit Your Requirements in Our Shop.

RADIAL GRATING for Circular Walkways.

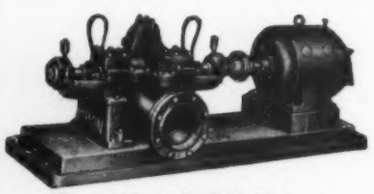
DIAMONOS and CLOSNOS STAIR TREADS—Made to Your Specifications.

*SEND FOR CATALOG*

*Showing Diamond Grating in one of the Dubbs Cracking Installations.*

**Wm. F. KLEMP CO., 6624 S. Melvina Ave., Chicago**

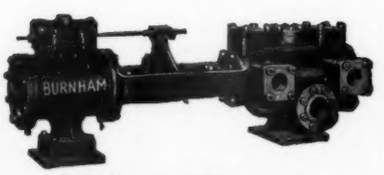
# PIONEERS IN PUMPS



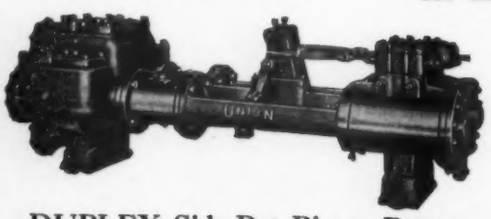
Centrifugal Oil Pump

Union Oil Refinery Pumps are known for their continuous hard service. They are approved by the Universal Oil Products Company, and used by many Dubbs licensees and other refiners everywhere.

We were one of the first companies to introduce hot oil pumping equipment. We are in a position to furnish any pumping equipment for the oil industry.

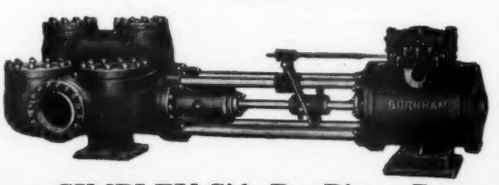



Minimum Clearance Piston Pump




DUPLEX Side-Pot Piston Pump

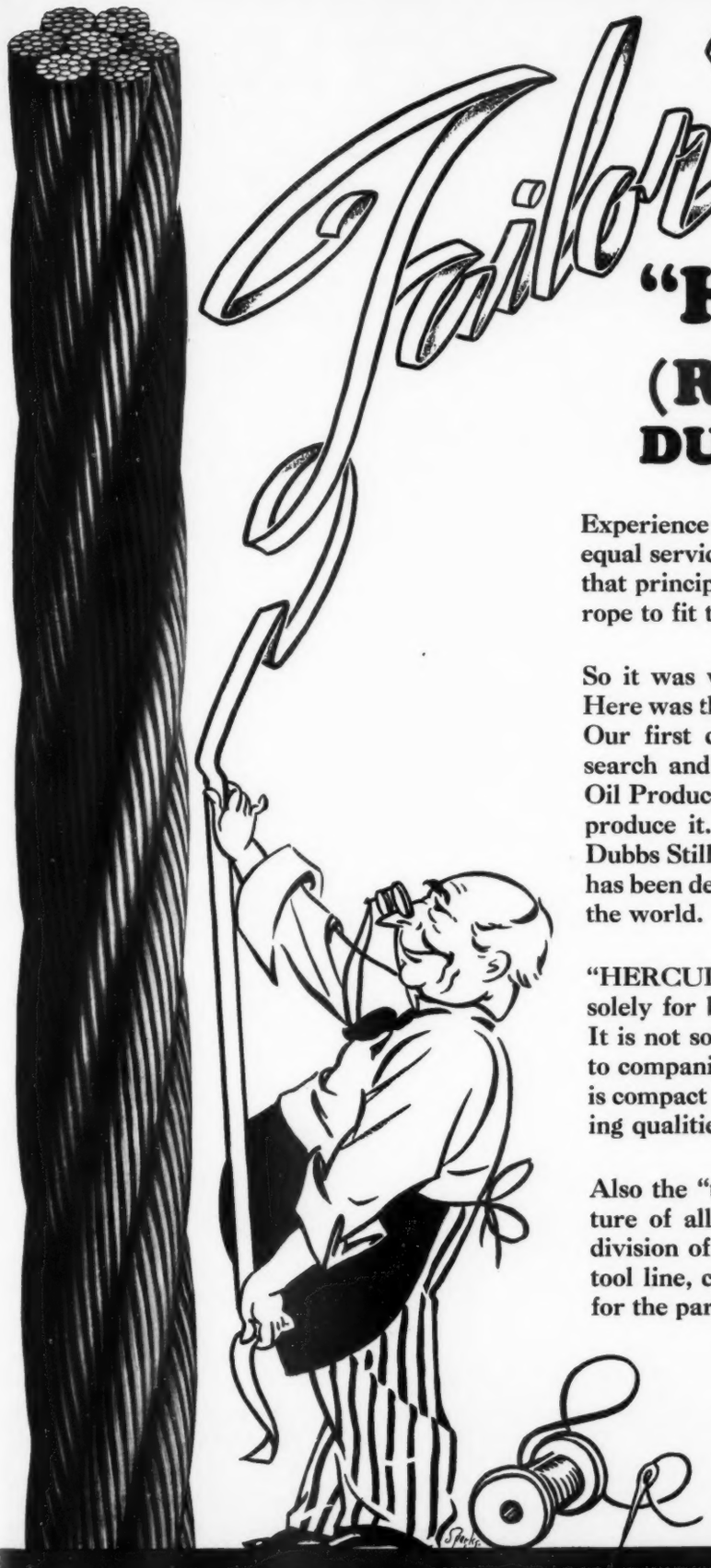
Five representative designs of Union Pumps are shown here. Ask us about anything in pumping equipment. Union pumps are giving satisfaction throughout the oil industry.




SIMPLEX Side-Pot Piston Pump

DUPLEX POWER CHARGE PUMP

**UNION STEAM PUMP CO., Battle Creek, Michigan**



# Tailor Made

## "HERCULES" (RED-STRAND) DUBBS STILL ROPE

Experience has taught that no one type of wire rope can give equal service under all working conditions. In keeping with that principle it has long been our policy to "tailor make" a rope to fit the given conditions encountered.

So it was with the advent of the Dubbs cracking process. Here was the problem of removing the accumulation of coke. Our first consideration was to determine, by diligent research and with the splendid cooperation of the Universal Oil Products Company, just what was required—the next to produce it. The result was "HERCULES" (Red-Strand) Dubbs Still Wire Rope. Its exceptional ability for this work has been demonstrated by its performance record throughout the world.

"HERCULES" (Red-Strand) Dubbs Still Rope is made solely for breaking up coke deposits in cracking chambers. It is not sold for any other purpose and it is furnished only to companies who are licensed to use the Dubbs process. It is compact in structure, and of the proper strength and wearing qualities for maximum efficiency.

Also the "tailor made" principle is applied in the manufacture of all Leschen Wire Lines for use in the production division of the Oil Industry. A Leschen rotary line, cable-tool line, casing line, sand line, swabbing line, etc., is made for the particular work it is to do.

Made Only By

**A. LESCHEN & SONS ROPE CO.**

Established 1857

5909 Kennerly Avenue, St. Louis, Missouri

New York Chicago Denver San Francisco Portland Seattle

TRADE MARK REG. U. S. PAT. OFF.

# METALLO
## GASKET COMPANY

17 Bethany Street
NEW BRUNSWICK, N. J.

**GASKETS FOR DUBBS**
Cracking Process

**METALLO STYLE 5**
Double Armored Metal Asbestos Filled

**METALLO STYLE 1000**
Double Jacketed Corrugated Metal Asbestos Filled

**METALLO STYLE 1**
Plain Corrugated Metal

**METALLO STYLE 2**
A Combination of Deeply Corrugated Metal and Long Fibre Asbestos Cord Inlaid

**METALLO STYLE 3**
Single Jacket Metal Asbestos Filled

**METALLO STYLE 4**
Double Jacket Metal Asbestos Filled

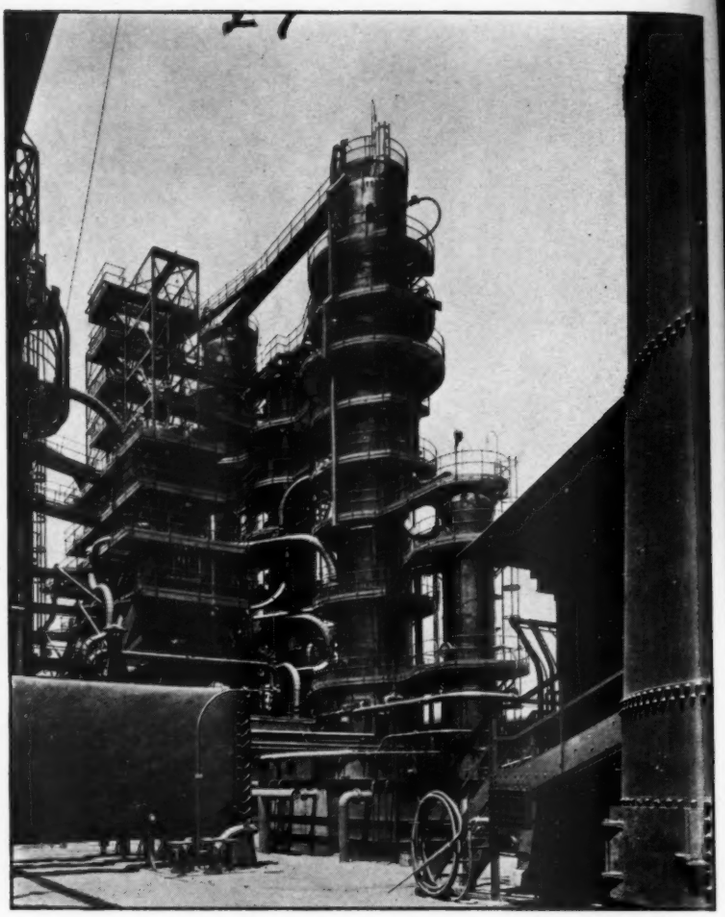
**METALLO PROFILE**

**METALLO VALVE DISC**
Made of Copper Entirely Enclosing a Filler of Asbestos Packing

**METALLO RASCHIG RINGS**
Size From 1/8" to 2" Diameter

**METALLO GASKETS AND WASHERS**
Made of Any Metal in All Sizes

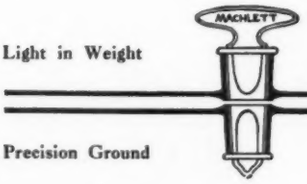
*Let us quote on your requirements.*



*Part of Dubbs plant in Shell Petroleum Corp.'s Wood River, Ill., refinery*

# MACHLETT
## HOLLOW PLUG STOPCOCKS

(Constructed entirely of Pyrex Brand Glass)




The development work at Universal's Riverside research laboratories is facilitated by the use of Machlett Hollow Plug Stopcocks.

*"We have found these stopcocks particularly applicable where high vacuum work is concerned. They allow no leakage."*

THAT'S THE WORD FROM RIVERSIDE.

All research organizations engaged in oil or process development work will automatically overcome many of their apparatus problems by this new aid to science.

*Send for Bulletin "MP" giving full particulars.*

**E. MACHLETT & SON**
*Est. 1897*
Special Apparatus to order.
220 East 23rd Street New York, N. Y.

# WHY

***The Oil Industry's***

# BEST PIPING

***is Welded—With***

# TUBE-TURNS

No industry in the world demands more of its piping than does the oil industry. And nowhere are Tube-Turns* more widely used. . . This isn't entirely due to the advantages of the welding process itself. Tube-Turns themselves make it *easier to secure the best kind of welding*. Tube-Turns align accurately with both the O. D. and I. D. of the pipe—there are no thick spots or thin spots—there are no shoulders, no "gaps" to bridge—no "bad fits" that require extra time, extra rod, extra care in welding. . . That's only *part* of the Tube-Turn story. Get *all* the facts! Read the first thirteen pages of Tube-Turn Catalog No. 107 or 107-A. . . . If you've misplaced your copy, write for a new one today. Tube-Turns, *Incorporated*, Louisville, Ky.

*The word "Tube-Turn" is NOT a necessary general trade name for welding fittings. It is the registered trade-mark for the products made by Tube-Turns, Incorporated, under their patents.

*These*

# DOW CHEMICALS

ARE LEADERS IN THE

*Oil Industry*

CAUSTIC SODA • PHENOL

CARBON TETRACHLORIDE
99.9%

ETHYLENE DICHLORIDE

CALCIUM CHLORIDE

ANILINE OIL

DOWTHERM *(Heat Transfer Medium)*

Through the years Dow chemicals have earned a genuine respect for their consistent quality and utter dependability.

Only the actual experience of working with Dow chemicals will convey the full significance of their leadership as products serving the oil industry.

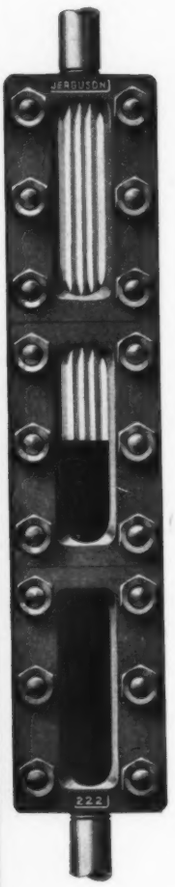
Let Dow quote you on your needs—let Dow show you the extent of its service—and let the products prove for themselves a superiority that you will welcome.

THE DOW CHEMICAL COMPANY, Midland, Michigan
*Branch Sales Offices:* 30 Rockefeller Plaza, New York City—Second and Madison Streets, St. Louis—135 South La Salle Street, Chicago

*DOW

*Trade Mark Registered U. S. Patent Office

JERGUSON




# REFLEX GAGES

have for years been approved and used by the Universal Oil Products Co. and others throughout the oil refining industry in the United States and abroad. They are suitable for temperatures ranging from sub-zero to 1000°F or more; for pressures ranging from high vacuum to 2500 pounds or more. Under all conditions and regardless of the liquid in the tank, Maximum Safety is provided because . . . .

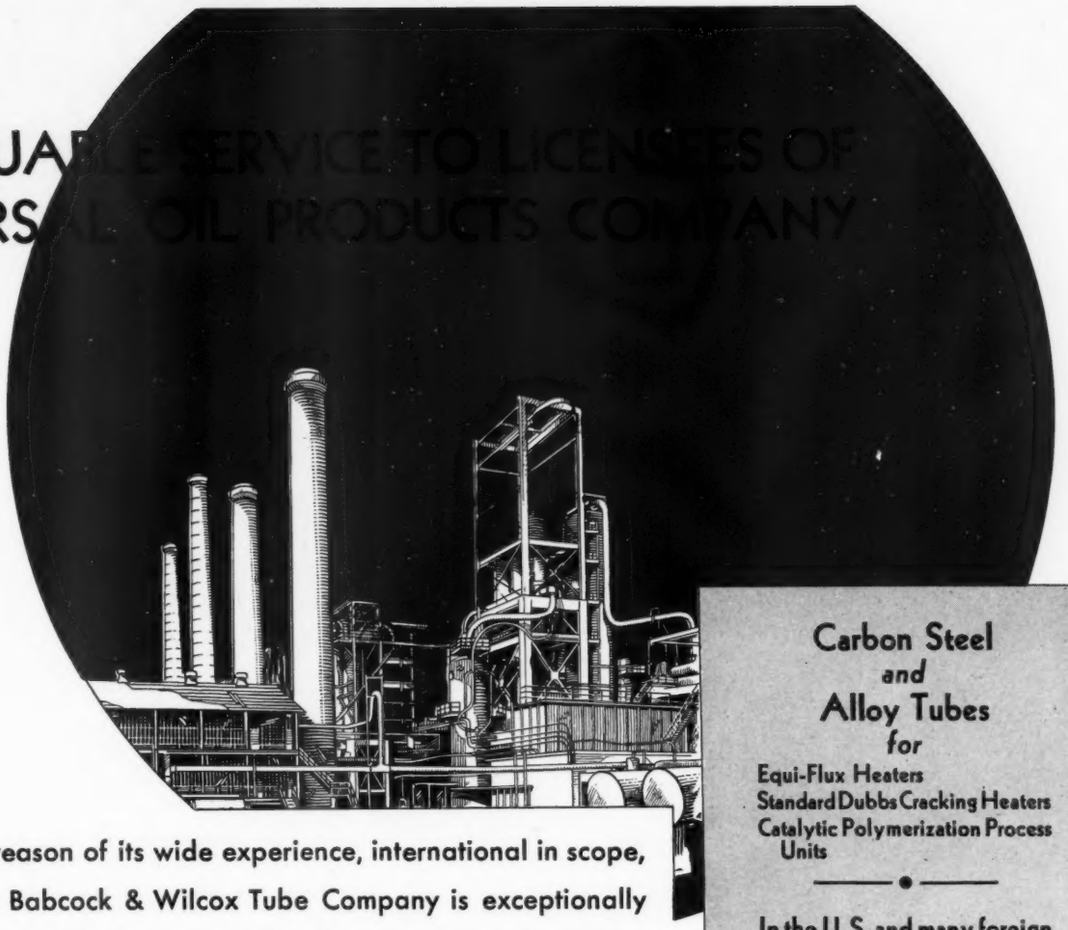
**The empty space appears WHITE**

**The liquid always shows BLACK**

This provides maximum visibility. Our Reflex Gages are furnished with or without automatic closing valves. Gages with transparent glasses for observing the color and density of the liquid are also available in various lengths.

**JERGUSON GAGE & VALVE CO.**
Mystic Avenue and Northern Artery
SOMERVILLE, MASS.

# A VALUABLE SERVICE TO LICENSEES OF UNIVERSAL OIL PRODUCTS COMPANY



By reason of its wide experience, international in scope, The Babcock & Wilcox Tube Company is exceptionally well qualified to help U.O.P. licensees select the precise kind of tubing or pipe best suited to any specific application. This service is especially advantageous to engineers interested in corrosion-resistant and oxidation-resistant alloys for use at high temperatures.

The Babcock & Wilcox Tube Company was the first commercial producer of stainless seamless tubes in the United States, and has continued to pioneer in the development of new alloys for refinery service. Four of these alloys, originated by B&W, as indicated at the right, are used extensively in U.O.P. processes.

*Technical data sent on request*

**The Babcock & Wilcox Tube Company**
BEAVER FALLS PENNSYLVANIA

●

**Carbon Steel and Alloy Tubes for**

Equi-Flux Heaters
Standard Dubbs Cracking Heaters
Catalytic Polymerization Process Units

In the U.S. and many foreign countries:

| | |
|---|---|
| Argentine | Holland |
| Bahrein Islands | India |
| Canada | Japan |
| Canary Islands | Mexico |
| Dutch East Indies | Persia |
| Dutch West Indies | Roumania |
| Egypt | Trinidad |

**Complete Range of Alloys for Refinery Service, with 1% to 27% Chromium**

**B&W Alloys Developed by The Babcock & Wilcox Tube Company and Used Extensively in U. O. P. Processes:**

Croloy 2
*Croloy 2¼ with high Moly
Croloy 3-M with high Moly
*Croloy 9

**Other B&W Alloys for Still Tubes and Heat Exchanger Tubing:**

Croloy 1¼
Croloy 2
Croloy 5-M
Croloy 5-M-Ti
Croloy 5-M-Cb
Croloy 18-8
*Croloy 16-13-3
Croloy 25-20

*Patents applied for

BABCOCK & WILCOX TUBES

# On Guard!

Armstrong steam trap draining separator on engine driving hot oil pump in Universal Oil Products' experimental plant in East Chicago.

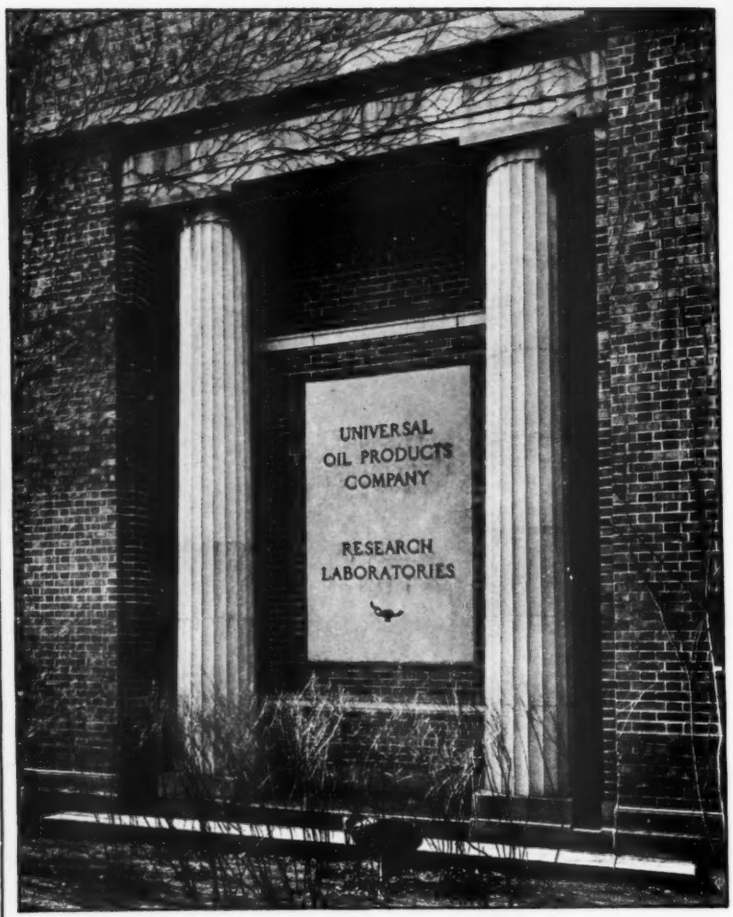
## —in Refineries throughout the world

PROTECTION against waste of steam . . . protection against the physical damage that might be caused by slugs of water . . . protection against interruption of refining processes . . . maintenance of uniform heating rates—this is the service you get when you put genuine Armstrong Steam Traps on the job. Use them everywhere: on separators, reboilers, heaters, drips, etc. Complete line, any pressure up to 2300 lbs. per sq. in. steam or 3000 lbs. gas. Sales, service and stocks in all leading refining centers. Write. ARMSTRONG MACHINE WORKS, 868 Maple St., Three Rivers, Mich.

**Free!**

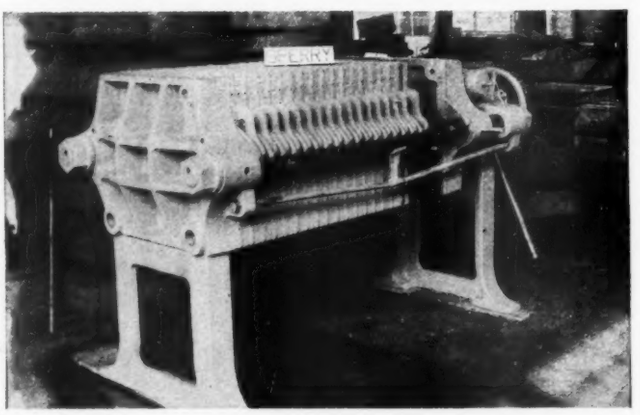
*Ask for a copy of the new fourth edition of The Armstrong Steam Trap Book. Contains a wealth of useful information about pipe sizes, drainage systems, etc.*

# ARMSTRONG Steam Traps




*At the Riverside Laboratories*

## DESIGNED for the CONTACT PROCESS




This 24" Sperry Filter Press fitted with ratchet closing is the type used by oil refineries in the contact process, and other operations requiring filter presses.

Sperry has been designing and manufacturing equipment for industrial filtration for more than forty years. This experience makes possible savings in initial outlay, and assures economical operation of installation.

Send samples of your materials for testing in our laboratory. No obligation.

**SPERRY FILTER PRESSES**

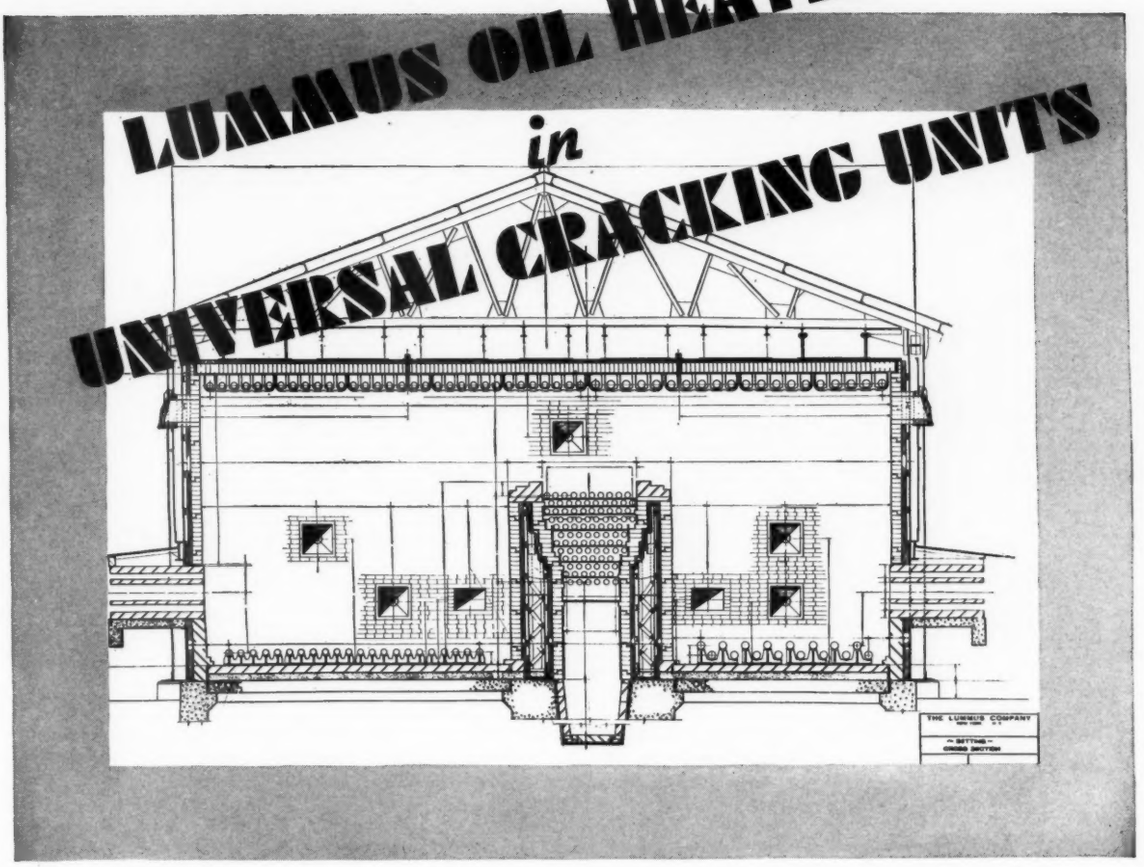
**D. R. SPERRY & CO. BATAVIA, ILL.**

*Filtration Engineers For Over Forty Years*

*Eastern Sales Representative:*
HENRY E. JACOBY, M. E.
205 E. 42nd St., New York City
Tel. MUrray Hill 4-3581

*Western Sales Representative:*
B. M. PHILHASHY
Merchants Exchange Building
San Francisco, Calif.

# LUMMUS OIL HEATERS *in* UNIVERSAL CRACKING UNITS



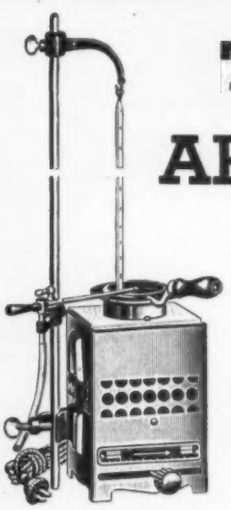
Lummus has designed, to Universal Oil Products Company's rigid specifications, a number of oil heating furnaces which contribute to the efficiency and high yield of Dubbs Cracking Units.

THE LUMMUS COMPANY, 420 LEXINGTON AVENUE, NEW YORK, N.Y. • BUSH HOUSE, ALDWYCH, LONDON, W. C. 2

# LUMMUS

## PETROLEUM REFINING PLANTS

*Few of the thousands of materials studied by Universal Oil Products Co. in its catalytic research programs*

# TESTING APPARATUS

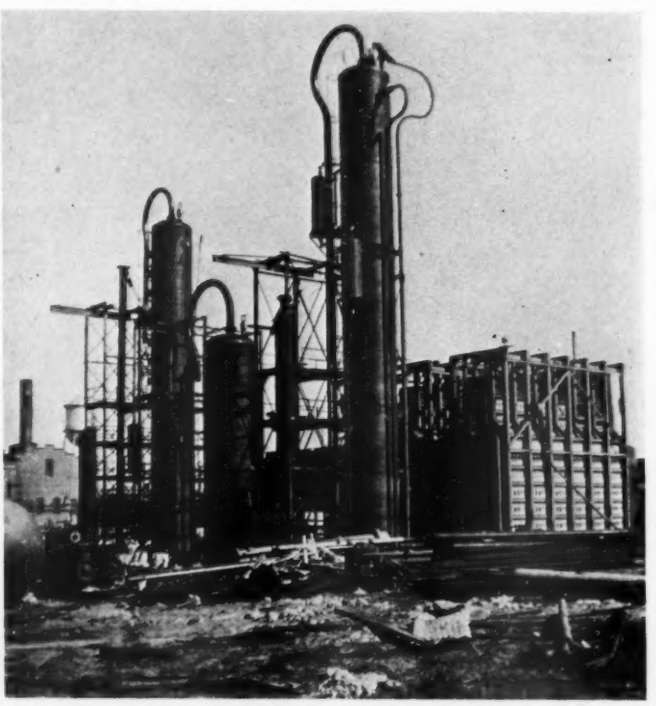
For the Oil Industry
Pyrex Glassware
Coors Porcelain
Whatman Filter Papers
A. S. T. M. Apparatus
Thermometers

We regularly supply the great Riverside laboratories of the Universal Oil Products Company, and other oil research laboratories everywhere.

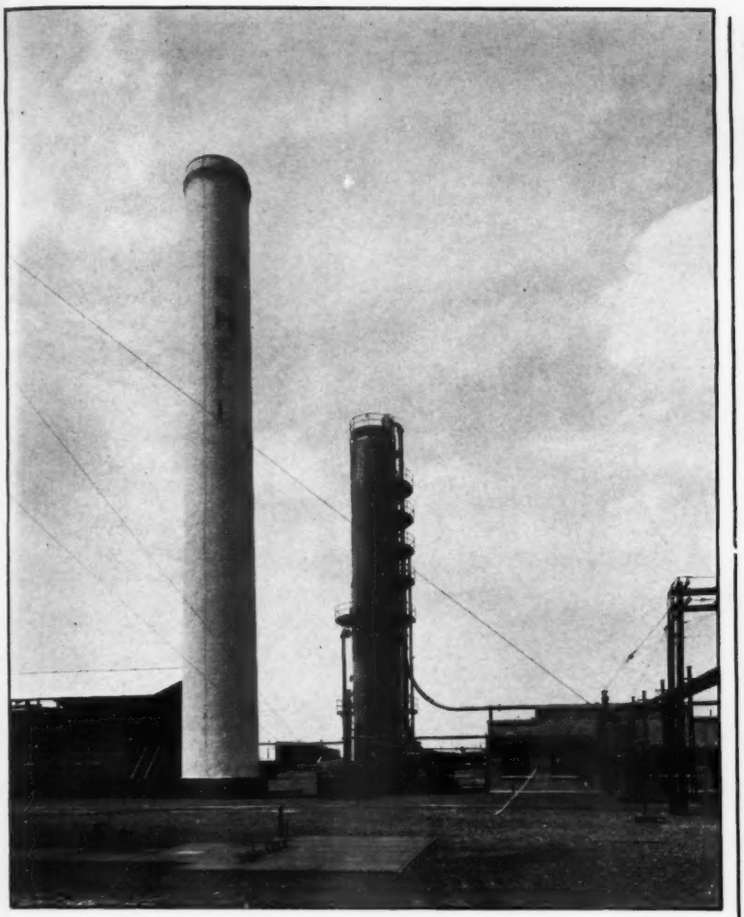
Quick Deliveries

**Schaar & Company**

Scientific Instruments & Chemicals
754-762 W. Lexington St.
CHICAGO, ILL. U. S. A.



EASTERN STATES PETROLEUM CO.
9,000 BARREL DUBBS UNIT
DESIGNED AND CONSTRUCTED BY
**AMPCO**
*Consulting Petroleum Engineers*
TOWER PETROLEUM BLDG. — DALLAS, TEXAS



*Dubbs 8,400-bbl. reforming unit in the Shell Petroleum Corp.'s East Chicago refinery*

# PRECISION IN GLASS

● Since we introduced interchangeable ground glass joints a few years ago, we have continually improved their quality. Today, as leaders of our field we present the ultimate in ground glass joints. A joint, formed with tools, having a wall consistent in thickness and with a 95% bearing surface. Figure 1, illustrates a cross-section of the present joint compared to the older type; it is very clear that strength and appearance have been greatly improved.

● A highly efficient bubble cap column is the new improved Bruun type, illustrated in Figure 2. Many of the major oil companies have installed either a fifty or one hundred plate column and are pleased with the results. For detailed information refer to the May, 1936 issue of the Industrial and Engineering Chemistry.

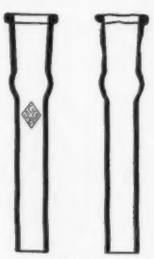


*Fig. 1*

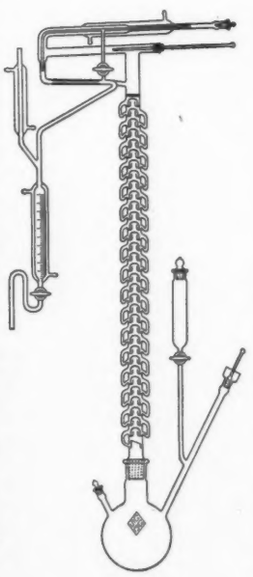


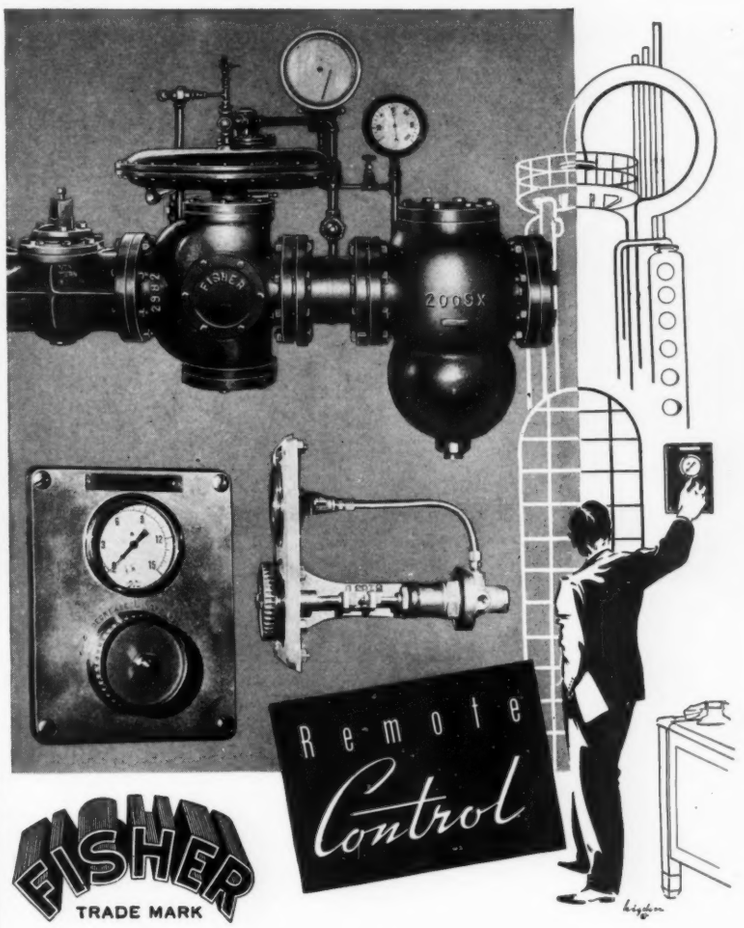
*Fig. 2*

Write for a copy of our Interchangeable Ground Glass Catalog GG4-36.

**SCIENTIFIC GLASS APPARATUS CO.**
BLOOMFIELD NEW JERSEY

# Super Sensitive ... Pressure Balanced REGULATOR

## As Used On Many Universal Oil Products Company's Installations



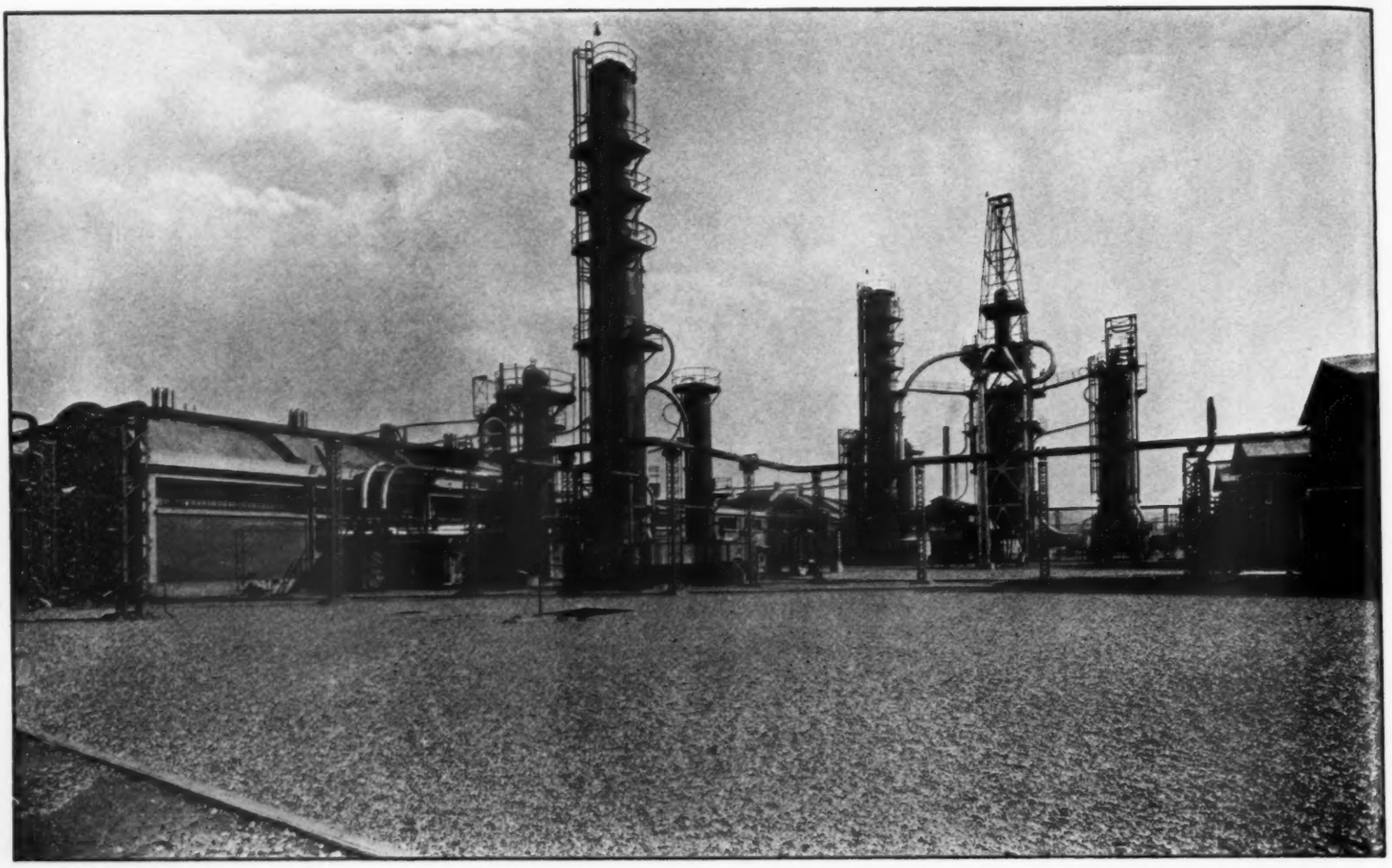

FISHER TRADE MARK

The Fisher Type 781 pressure balanced regulator has been developed especially for low or intermediate pressure regulation where the reduced pressure must be maintained with maximum sensitivity and accuracy. Particularly adaptable to industrial plant measurement stations, natural gasoline plants, distribution control, or for the control of gas pressure to burners on refinery tube stills, furnaces, and similar controls. This can be furnished for a compact, close connected installation, or as illustrated above, with a panel mounting pilot loading unit installed in a remote position to the main valve. Installations of this type afford a maximum of flexibility and enables the control house operator to accurately govern his fires from the control room as the indicating gauge always shows the pressure being delivered to the burner.

The Fisher Type 781 has no stuffing boxes, no springs, lever and weights, or other friction creating mechanism. Available in sizes ½" to 16", and for all normal gas pressures for pounds to pounds or pounds to inches of water column regulation. This same design of regulator is also available for pressure relief service.

Write for the new Fisher Gas Catalog 32-B

**Fisher Governor Company**
201 SOUTH FIRST AVENUE
MARSHALLTOWN, IOWA
FISHER TRADE MARK
REPRESENTATIVES IN EVERY PRINCIPAL CITY



*Two Dubbs installations at Rouen, France*


# If YOU CAN DRAW IT WE CAN MAKE IT

THERE IS NOTHING NEW TO US IN FABRICATION OF METAL or STEEL

We Fabricate the following items used by Universal Oil Products Co.:

- Laboratory Equipment
- Fume Hoods
- Single and Double Laboratory Table
- Cabinets with Alberene Stone Tops
- Pipe Lines of Alloy Steel
- Instrument Boards
- Special Alloy Machine Bolts
- Alloy Steel Flues
- Drip Funnels
- Cooler Stands—Coils and Coil Supports
- Light Guage Stacks of Alloy Steel
- Air Ducts
- Emergency and Alloy Steel Dampers
- Pull Boxes
- Alloy Steel Nozzle Liners
- Alloy Steel Baffle Plates
- Control Panel Boards, Etc.

CHICAGO METAL MFG. CO.
3724 S. ROCKWELL ST., CHICAGO, ILL.



# WHY

"48" Insulations meet the specifications of the Universal Oil Products Company. They are on the approved list.

Universal specifications are exacting. "48" Insulations satisfy them because:

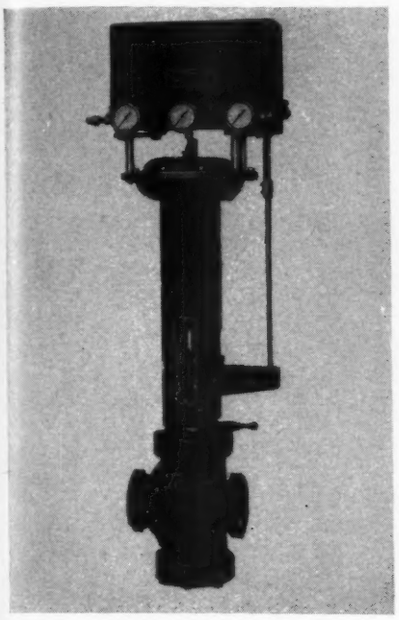
1. The one Heat Insulation Block that is water repellent.
2. Lowest thermal conductivity.
3. Lowest heat loss at joints . . . least air infiltration.
4. Resilient . . . fits irregular surfaces snugly.
5. Absorbs normal expansion of equipment to which applied.
6. Not susceptible to shrinking nor cracking.
7. Tailored to fit . . . delivered to the job ready cut for installation.
8. Besides, can be installed simultaneously with the brickwork.

FORTY-EIGHT INSULATIONS, INC. —GENERAL OFFICES— AURORA - - - ILL.
FACTORIES: AURORA, ILL. MIDVALE, UTAH

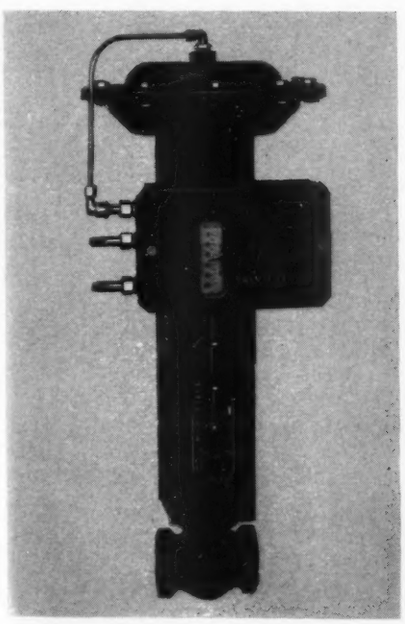
*"Crusaders Against Heat Waste"*

Cement, Blocks, Blankets, Bricks

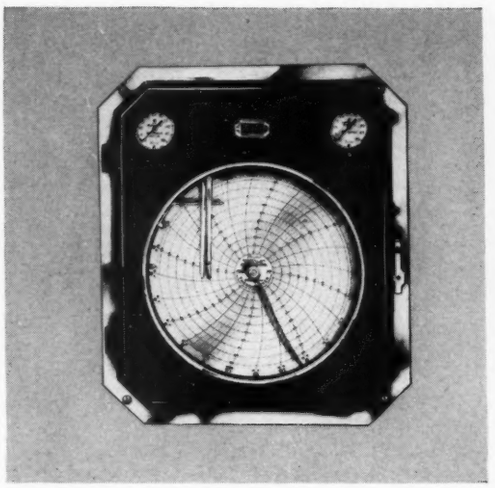
# For Precision Control in Refineries



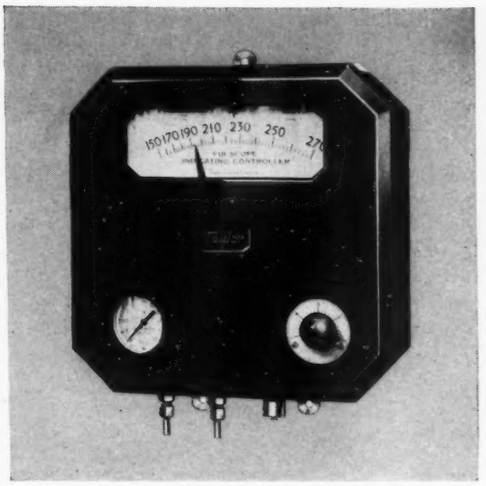
**TAYLOR "DUBL-RESPONSE" CONTROL UNIT ON TAYLOR MOTOSTEEL EVENACTION VALVE:** Another original Taylor development to meet refinery conditions. An auxiliary control that supplements Taylor "Fulscope" Controller performance where load changes occur. Has full "reset." Prevents "drift" from the control setting. Mounted on the Taylor Evenaction Valve, so Precision Valve Action is an inbuilt feature. Assures long, trouble-free valve performance. Easy to adjust, simply the turn of a screw-driver, sturdily built, and correctly designed. The first of the "valve-positioners." **TAYLOR MOTOSTEEL EVENACTION VALVE:** A new motor valve in keeping with refinery practice. All steel welded construction. Lighter in weight than cast-iron motors, but much stronger—with greater resistance to shocks and strains. Moulded diaphragm and spring are enclosed in steel. Roller-bearing stem guide. Position indicator. Other special features to make this new Taylor valve the most efficient and up-to-date on the market.



**TAYLOR VALV-PRECISOR.** Every diaphragm valve has some hysteresis, the result of excessive tightening of the stuffing box, corrosion or the pitting of the stem, dissolving of the packing and lubricant, etc. A balky valve can discredit the performance of the most efficient controller. Taylor developed the VALV-PRECISOR to assure continued friction-free valve performance. It automatically provides the extra power to overcome these forces. Can be mounted on any valve.



**TAYLOR "FULSCOPE" RECORDING CONTROLLER:** The heart of this controller is an original Taylor feature—the Universal Sensitivity Adjuster. A simple screw-driver adjustment on a graduated dial gives the one best sensitivity—between extremely high or very low—for each refinery installation. Flush or face mounted. Can be changed from direct to reverse-acting without addition of parts. Tube systems and parts interchangeable. Available for temperature, pressure, flow or level controllers.




**TAYLOR "FULSCOPE" INDICATING CONTROLLER:** For those refinery applications where a record is not essential. Incorporates many of the design and performance features formerly found only in Taylor "Fulscope" Recording Controllers. Dominant characteristics are complete adjustability and flexibility. Has the "Fulscope" Universal Sensitivity Adjuster. Can be changed from direct to reverse-acting without addition of parts. Flush or face mounted. Parts and tube systems interchangeable.

## TAYLOR INSTRUMENTS FOR TEMPERATURE, PRESSURE, FLOW AND LIQUID LEVEL HAVE ALL THE REQUISITES FOR ACCURATE, EFFICIENT, AND ECONOMICAL REFINERY OPERATIONS.

**TAYLOR INDUSTRIAL THERMOMETER WITH "BINOC" TUBING.** This new thermometer contains one of the most important advances ever made in Industrial Thermometer Tube construction. Doubles the angle of vision without sacrificing magnification...gives from 2 to 5 times the visibility... has Binocular Vision (reading with both eyes open—no squinting)... makes Taylor Thermometers the easiest to read now available. A really revolutionary development!

THE INSTRUMENTS shown on this page are in use on Universal Oil Products processes. They have won recognition from petroleum engineers because of their outstanding performance in actual service under severest operating conditions.

In refineries of every type Taylor "Fulscope" Controllers especially, among all Taylor instruments, are known for their universal sensitivity, flexibility of control and interchangeability of parts. They are a vital factor in helping refineries get full yield of refined products.

From long association with refinery control problems and from close co-operation with leading engineers concerned with the design, installation, and operation of refinery equipment, Taylor Engineers have a wide knowledge of the proper application of measurement and control instruments and systems. With this background of experience and with the correct instruments to accomplish the finest results, they can help you answer any questions regarding temperature, pressure, flow and liquid level measurement and control in your refinery.

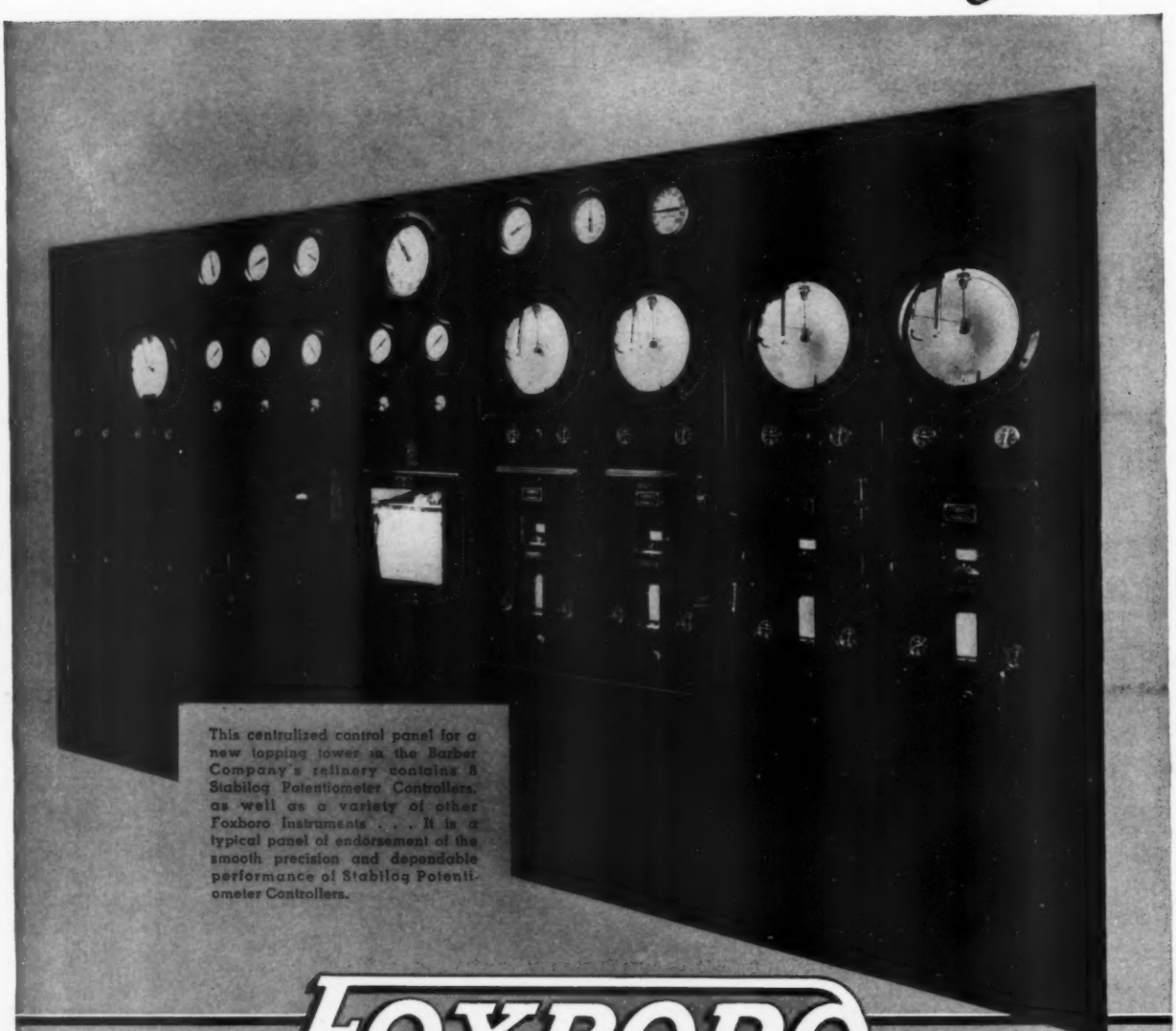
For full information regarding Taylor Control, ask a Taylor Representative. Or write direct to Taylor Instrument Companies, Rochester, N. Y. Plant also in Toronto, Canada. Manufacturers in Great Britain—Short & Mason, Ltd., London, England.

*Taylor*

**Indicating • Recording • Controlling**

**TEMPERATURE, PRESSURE** *and* **FLOW INSTRUMENTS**

# *Another panel of*



This centralized control panel for a new topping tower in the Barber Company's refinery contains 8 Stabilog Potentiometer Controllers, as well as a variety of other Foxboro Instruments . . . It is a typical panel of endorsement of the smooth precision and dependable performance of Stabilog Potentiometer Controllers.

FOXBORO

REG. U. S. PAT. OFF.

STABILOG POTENTIOMETER

# *Endorsement!...*

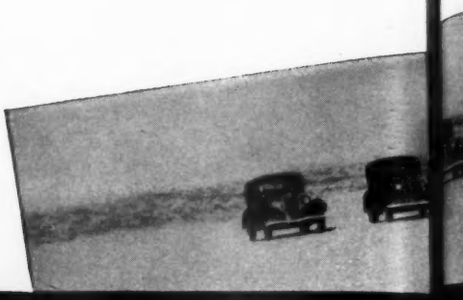
## . . of the smooth precision of Stabilog Potentiometer Controllers

"They keep the temperatures right on the line—and they're smooth and trouble-free in operation," is the way one of the engineers expressed the operation of these Foxboro Stabilog Potentiometer Controllers. But he'd expected that . . . he'd had experience with the way Stabilog Controllers held variations to a minimum and the way they re-lined operating conditions when upsets occurred. They expected everything to "click"—and it did, from the very beginning.

Foxboro experience, as well as the unequalled quality of the instruments, combine to assist many refineries from the time the first tentative blue-prints are made. Complete control engineering jobs are what the petroleum refining industry always expect from Foxboro—and that's what it always gets.

For automatic temperature control of towers, pipe stills, and the like, where the best control is desired with the minimum of attention, refiners choose the Stabilog Potentiometer Controller. A new bulletin, 194-1, giving full details is yours for the asking. The Foxboro Company, 60 Neponset Avenue, Foxboro, Massachusetts, U. S. A. Branch offices in 25 Principal Cities.

**CONTROLLERS** **RESPONSE ACCURACY**



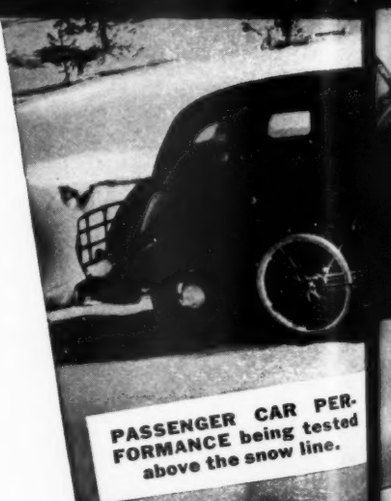
# PROVING GRO

IN the early days, roads within a few miles of the manufacturer's plants supplied the "proving ground" on which automotive vehicles were tested. Most of the important research questions of today were unheard of then—the one big problem was the development of automobiles which could be depended upon to keep in motion without the assistance of a horse.

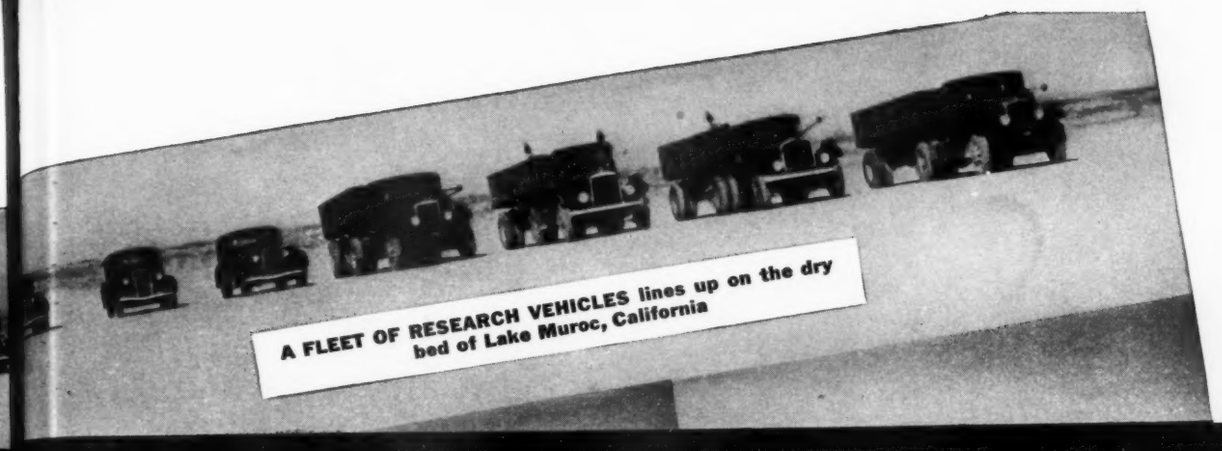
Then, after some years, private proving grounds, with steep grades, unobstructed straightaways, and varieties of road surface were built, and proving ground research resulted in almost unbelievable improvements in durability, comfort and performance. In a few short years the noisy, jerky contraptions which would climb only the slightest of grades without trouble were replaced by quiet, smoothly-running vehicles which traveled practically any road with ease. The private passenger automobile was generally accepted in nearly all parts of the world, and the commercial and farm tractor types of automotive vehicle also became of great importance.

As a result of the wide-spread distribution of automotive equipment of such different types, even the most elaborate proving ground can provide only some of the varied conditions for the research which is necessary to provide improved performance of vehicles in every part of the country at every time of year. Elevation, atmospheric temperature and humidity, dust storms, snow, ice, and long steep mountain grades establish operating conditions which can not all be satisfactorily reproduced in one place, yet which also create problems that must be solved if automotive progress is to continue. Therefore, the proving ground of the present-day automotive and petroleum research worker may be located practically anywhere on the continent of North America, depending on the conditions desired.

The Research Laboratories of the Ethyl Gasoline Corporation, in working for the mutual development of internal combustion engines and their fuels, have established facilities for conducting research work on many different types of equipment under a wide variety of conditions, as is indicated by the accompanying pictures. Many of the investigations are conducted in cooperation with the technical departments of oil and automotive companies, and opportunities for additional cooperative research *will be welcomed.* Ethyl Gasoline Corporation, Chrysler Building, New York, N. Y.



PASSENGER CAR PERFORMANCE being tested above the snow line.



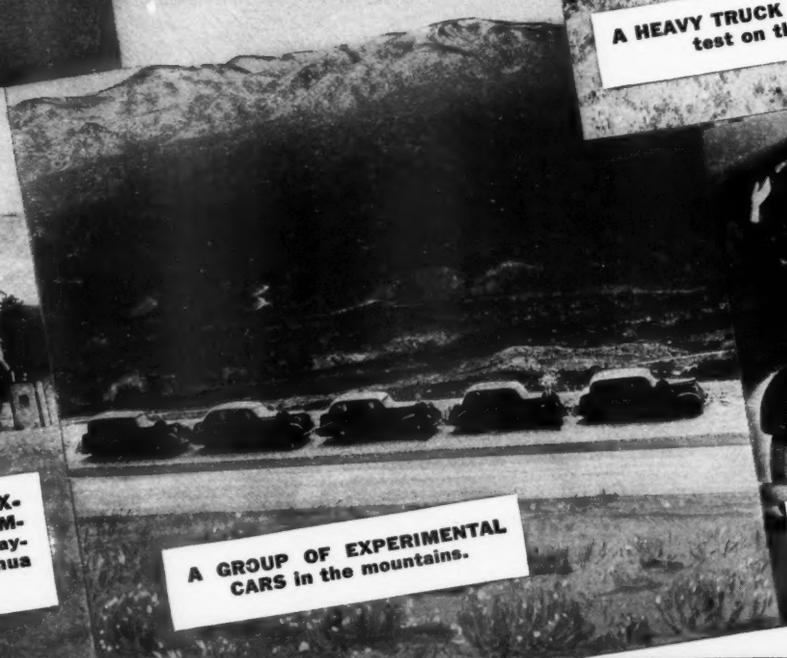
A FLEET OF RESEARCH VEHICLES lines up on the dry bed of Lake Muroc, California

# ...UND... 1937 model

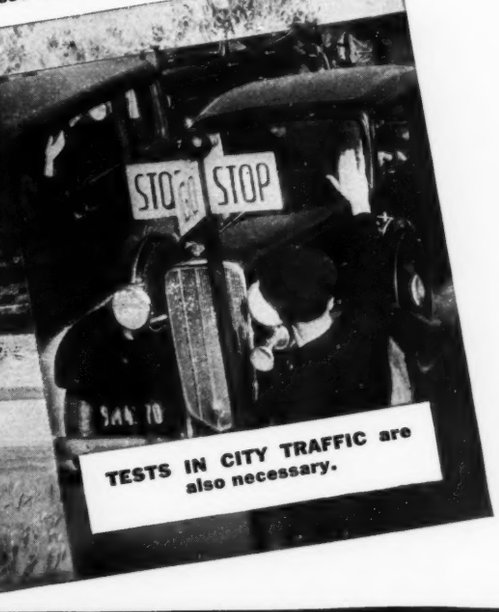
FARM TRACTORS being tested in temperatures consistently above 100 degrees F.

A HEAVY TRUCK runs into an unexpected test on the Mojave desert.

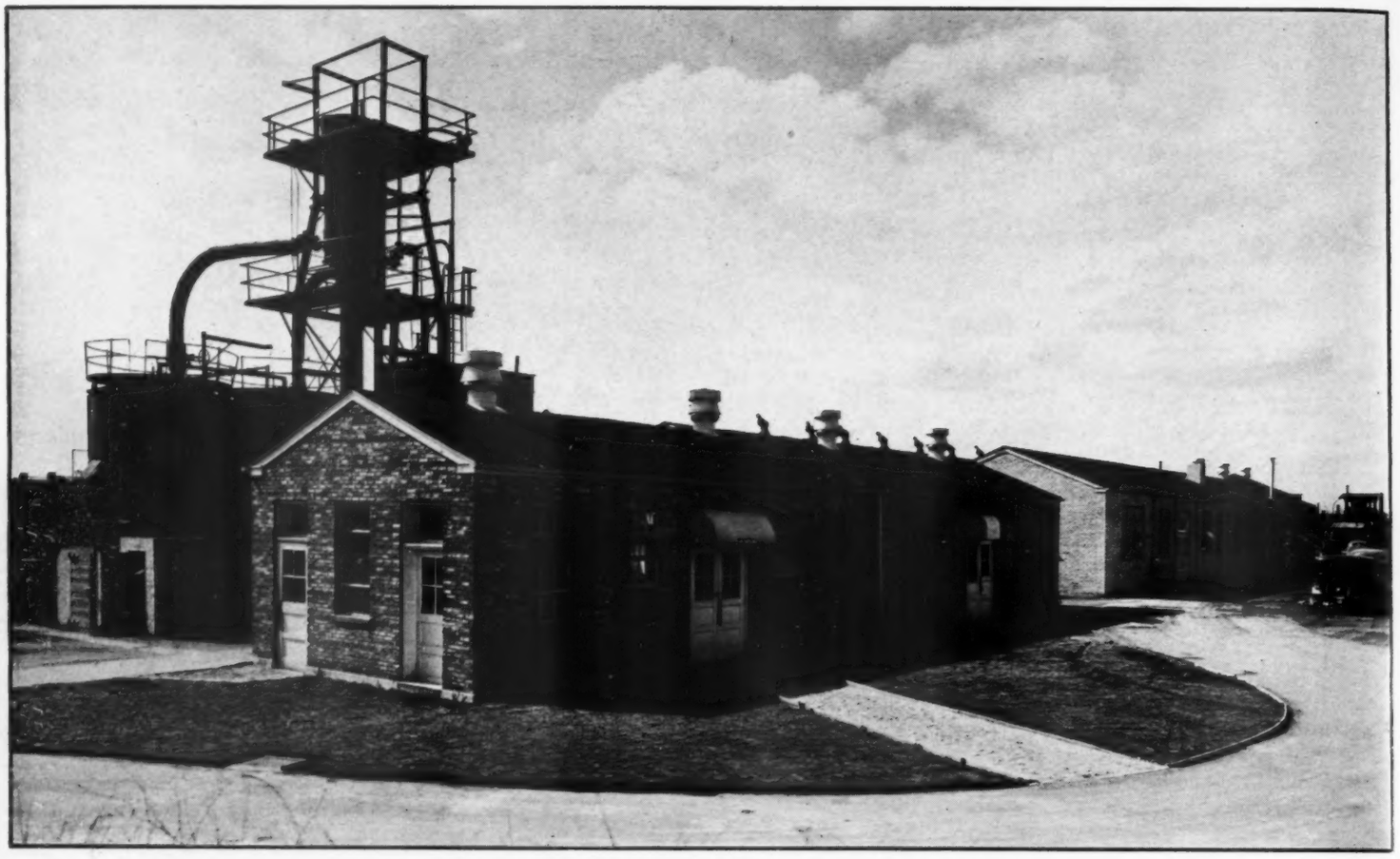
ANALYZING EXHAUST GAS SAMPLES beside a bayonet-spiked Joshua tree.



A GROUP OF EXPERIMENTAL CARS in the mountains.




TESTS IN CITY TRAFFIC are also necessary.



*Automotive Laboratories in the Universal Oil Products Co. at Riverside, Ill.*


*There is an*
ACCURATE,
DEPENDABLE,
DURABLE

# EMPIRE METER

*for measuring any*
PETROLEUM PRODUCT
*that flows*

WHETHER for metering crude or naphtha, tar or grease . . . in the field, refinery, bulk station, or on the truck . . . there is an Empire Meter which will measure and control both small and large flows more accurately, with greater dependability, and with lower maintenance costs than any other meter manufactured.

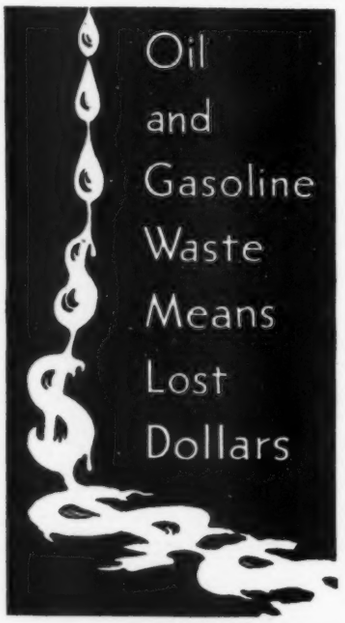
There is an Empire Meter for every petroleum product . . . every practical capacity and pressure. Built in sizes from 1/2 to 6 inches, for flows of 5 to 42,000 gallons per hour at working pressures up to 600 lbs. per square inch and even higher when required for special services, each Empire Meter is constructed of alloys recognized as possessing maximum resistance to corrosion by the liquid metered.

Those interested in increasing profits and reducing losses to a minimum should investigate the Empire Meter . . . then make comparisons. A catalogue will be sent without cost or obligation.

**NATIONAL METER Company**

4227 FIRST AVENUE, BROOKLYN, N. Y.
BOSTON • CHICAGO • DALLAS
LOS ANGELES • SAN FRANCISCO






# Stop

that *drip, drip, drip*—

that means lost profits and constant fire hazards. Follow the course of the leaders. Swing to

**Belmont 6100 Packing!!!**

Wherever valve stems and pumps handle oil, gasoline, naphtha, benzol or kerosene, Belmont 6100 is THE packing for the job. Made of high grade braided asbestos yarn, each strand is impregnated with a compound that is resistant to the action of such fluids . . . Assurance against loss by *drip!*

Try this packing. You'll find it *pays* to use Belmont!

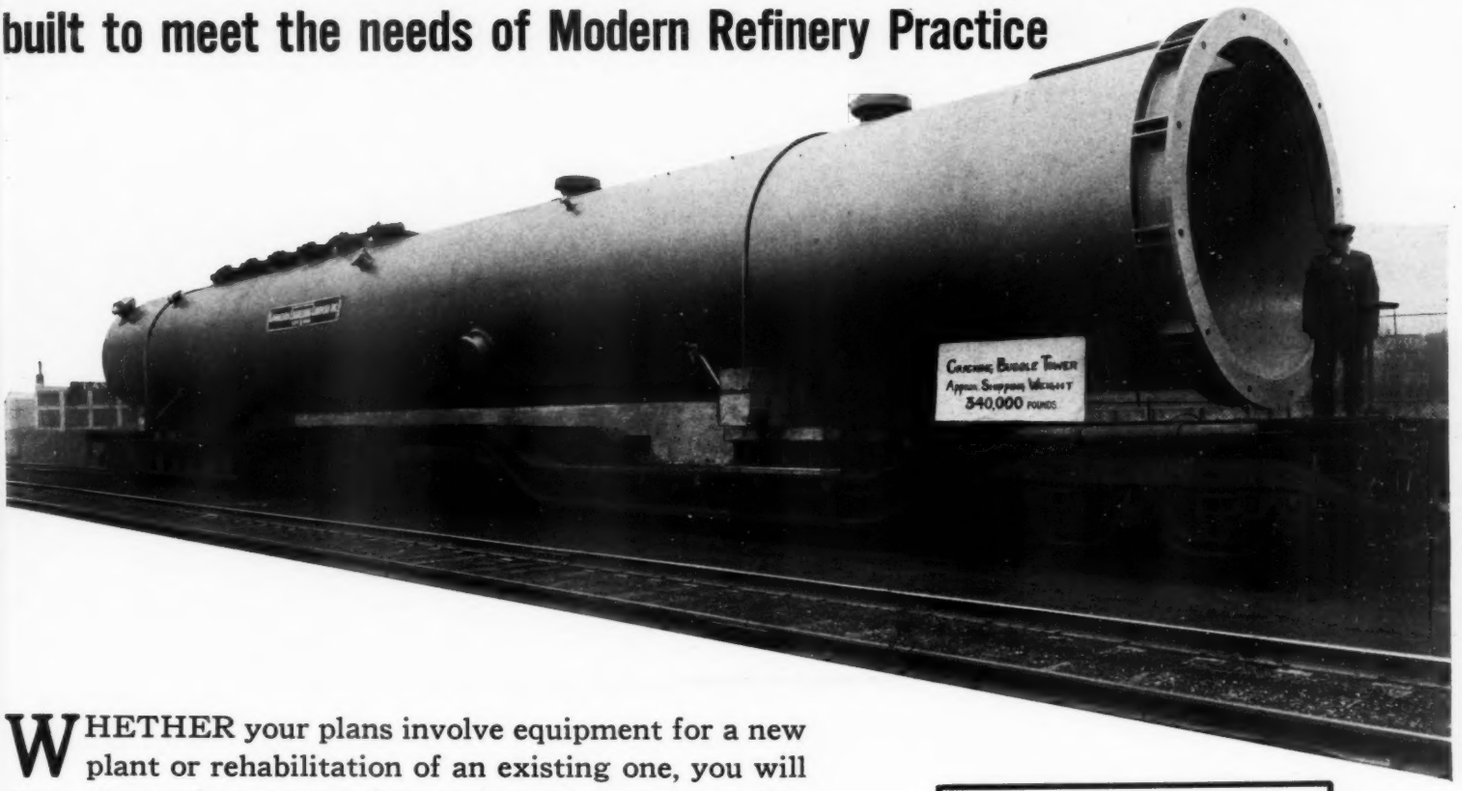
*The Belmont Folders illustrating the major types of packing for each individual requirement.*

*"There's a Belmont Packing for Every Purpose"*

THE BELMONT PACKING & RUBBER COMPANY
BUTLER & SEPVIVA STREETS, PHILADELPHIA, PA.

# REFINERY VESSELS

## built to meet the needs of Modern Refinery Practice




WHETHER your plans involve equipment for a new plant or rehabilitation of an existing one, you will want the equipment you buy to be truly representative of modern refinery practice and the most advanced fabricating methods.

Refining processes have so improved that in many instances the continued use of present equipment cannot be economically justified. Fabricating methods as applied to the various pressure vessels which are used in any process have likewise made notable progress. Be sure then that your new pressure vessels are correct not only in design but in method of fabrication.

Combustion Engineering, because of the experience gained in the manufacture of hundreds of refinery vessels of many types, sizes and materials, and equipped with every modern facility for fabrication and test, is eminently qualified to deal with your most exacting requirements.

We solicit the opportunity to quote on your present and future needs.

**Heat Exchangers**
**Stills**
**Separators**
**Tanks**
**Evaporators**
**Towers**
**Columns**
**Flash Chambers**
**Condensers**
**Reboilers**
**Absorbers**
**Defecators**
**Stabilizers**

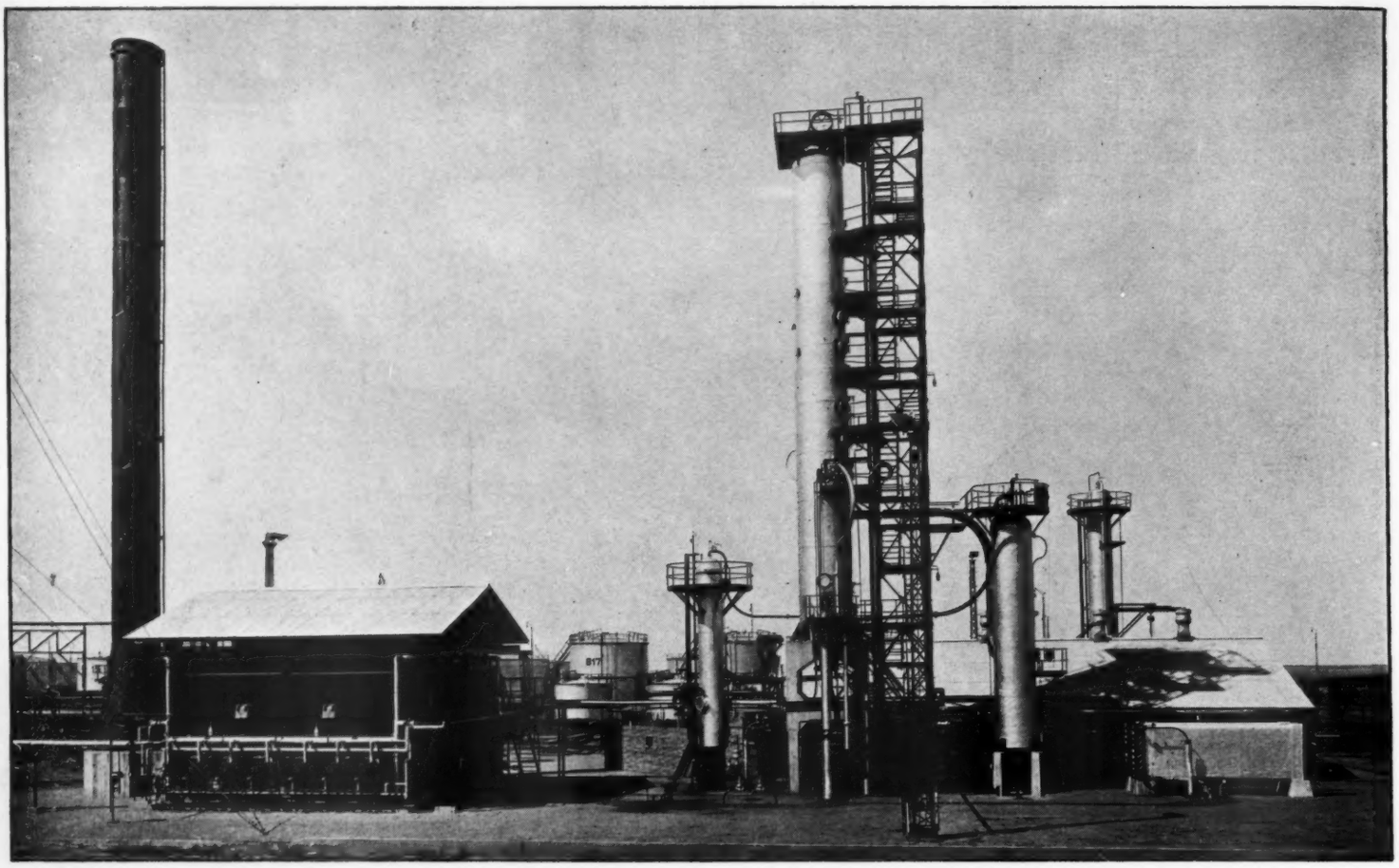
***Manufacturing Plants Producing Pressure Vessels and Fabricated Plate Work***

HEDGES-WALSH-WEIDNER DIVISION, CHATTANOOGA, TENN.
HEINE BOILER DIVISION, ST. LOUIS, MO.

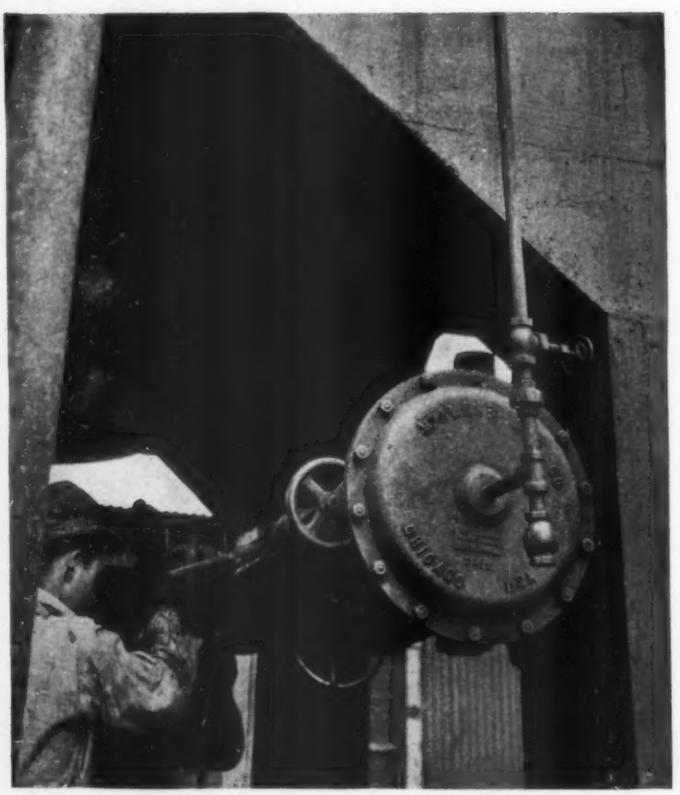
A-356

**COMBUSTION ENGINEERING COMPANY, INC.**

200 Madison Avenue, New York, N. Y. Canadian Associates, Combustion Engineering Corporation, Ltd., Montreal



*Dubbs reforming unit in Diadema Argentina S.A. De Petroleo. Located at Buenos Aires, Argentina*



# INSPECT A DUBBS UNIT

## and you'll usually find

# McAlear Controls

HERE is a McAlear Streamline Body Diaphragm Motor Valve that has been in continual use in a large Dubbs cracking unit for over three years. It is in regular service at the reaction chamber draw-off and has provided perfect, non-coking service all during this period without repairs or shut-downs. Inspect any Dubbs unit and you will usually find many McAlear Controllers being used.

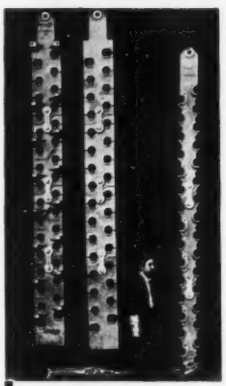
These efficient controllers for pressure, liquid level and flow are applicable for all types of refineries and natural gasoline plants. Write today for the latest McAlear catalog showing a complete line of automatic controls for the oil industry.

**THE McALEAR MFG. CO.**

1905 So. Western Ave., Chicago

**AUTOMATIC CONTROLS for PRESSURE • TEMPERATURE • LIQUID LEVEL • FLOW**

# CALITE Cast Chromium-Nickel Moly TUBE SUPPORTS



CALITE TUBE SUPPORT ASSEMBLY FOR UNIVERSAL OIL PRODUCTS CO. *Equi-Flux Unit*

USED IN

## UNIVERSAL OIL

EQUI-FLUX FURNACES

A total of

## 13 FURNACES

Now in Service

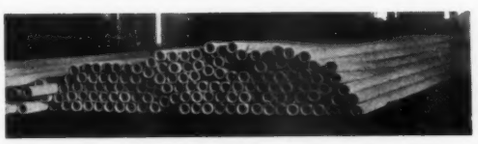
## ONLY CALITE HAS ALL 4

1. HEAT ENDURANCE: NON-SCALING AT 2000° F.
2. HIGHEST CREEP STRENGTH: 1500 lbs. per sq. in. at 1800° F.—under .01 % Creep per 1000 Hours.
3. PERMANENT DUCTILITY: 15% tested cold after 1000 hours at 1800° F.
4. RESISTANCE TO HIGH SULPHUR FUEL.

---

# CALORIZED TUBES

## 2¼% CHROME—1% MOLY



Part of a lot of 517—2¼% Chr. 1% Moly. CALORIZED Tubes 3½" OD x ⅜" Wall x 32' for UNIVERSAL OIL Equi-Flux Furnaces.

CALORIZING protects from:
Scaling up to 1400° F.
Erosion by Tube Cleaners.

CALORIZING adds to:
Corrosion Resistance.

Specimens Tested at 1400° F. Load = 2000 Lbs Per Sq. In.

5% Cr. + 0.50% Mo. 487 Hrs. Elong. 40%. Not Calorized

5% Cr. + 0.50% Mo. 600 Hrs. Elong. 2.41% —Calorized

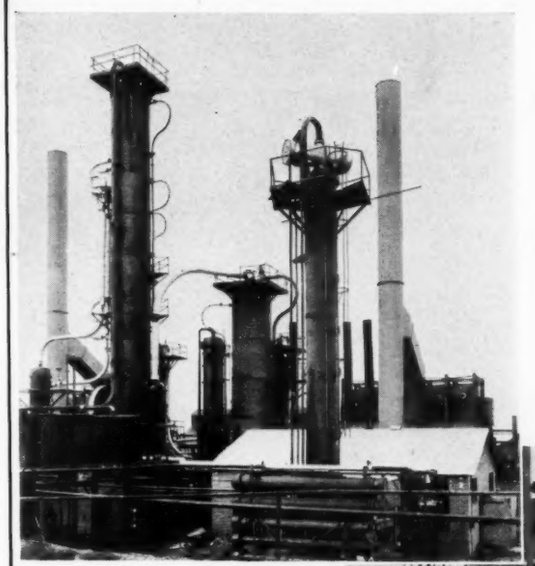
## 14 YEARS EXPERIENCE

Engineering Data from Research and Experience
Send for Bulletin

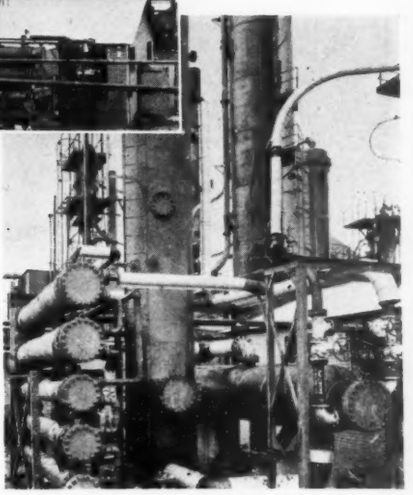
## THE CALORIZING COMPANY

425 HILL AVENUE. (Wilkinsburg Station) PITTSBURGH, PA.

# HEAT EXCHANGERS



TULSA TYPE *Specified* —THROUGH PERFORMANCE!



HEAT EXCHANGERS, REBOILERS, COOLERS, AND BUBBLE TOWERS RECENTLY BUILT FOR REFINERY IN OKLAHOMA.

Qualified fabricators of Oil Refinery and Gasoline Plant Equipment, Steel Plate Construction, Structural Steel.

TULSA TYPE

## Tulsa Boiler & Machinery Co.

West Twenty-First Street & Union Avenue
TULSA, OKLAHOMA

# *USE THE WORLD WITHIN ITS COVERS*

THERE is a world of useful piping information within the covers of your Crane No. 52 Catalog. Tables of practical data on piping, resistance to flow, thermal properties, so forth and so on. So much of it that only a personal tour through the 764 pages can reveal all of the useful information which it contains.

Make use of it—use it in your layout work—writing specifications and for making up your orders. That is the easy way to be sure of getting top-notch quality throughout your piping systems. In it also you will find a list of the Crane branches which carry stocks of commonly used items. Send your order to the nearest one, or to your local Crane distributor. Whatever your needs may be, look in your No. 52 and other Crane catalogs. For most "new" valve problems Crane has a solution, proved and ready for use. These catalogs list over 38,000 items tested in the laboratory and proved on the job. Use these when you need valves, fittings, pipe or accessories. CranEquip for satisfaction.

## CRANE

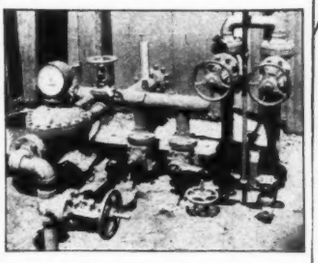
CRANE CO., GENERAL OFFICES: 836 S. MICHIGAN AVE., CHICAGO, ILLINOIS

*Branches and Sales Offices in One Hundred and Sixty Cities*

VALVES, FITTINGS, FABRICATED PIPE, PUMPS, PLUMBING AND HEATING MATERIAL

plied in the next few days.

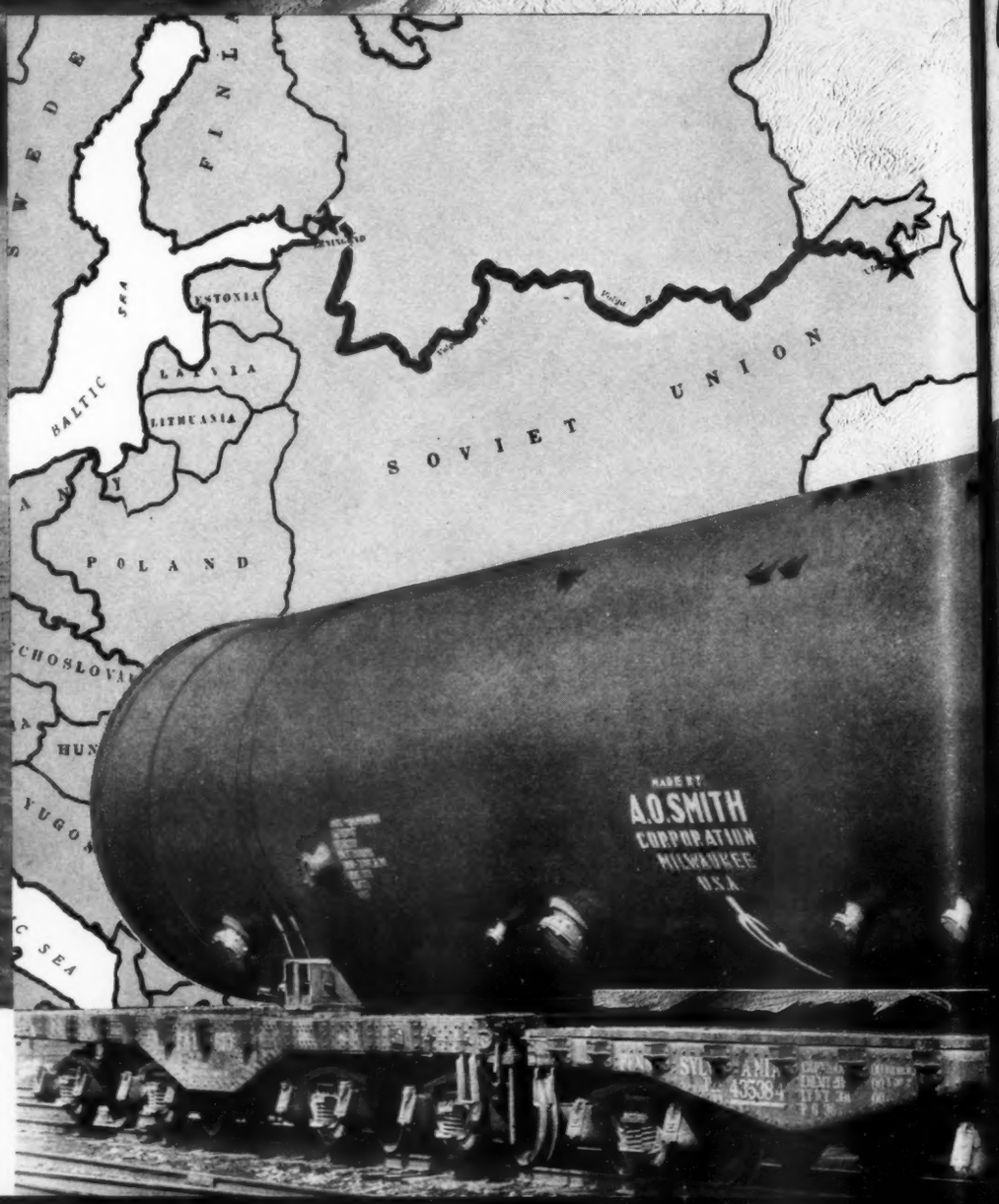
## EVER SINCE THE BATTLE STARTED



TULSA, OKLA., June 24—Ever since those twin terrors—corrosion and obsolescence—started to plague oil engineers Crane has been in the middle of the battle. New metals and alloys have been and are being developed by Crane to keep corrosion within bounds. And many an engineer has found that CranEquipment built for *maximum* service is better in the swiftly changing oil country scene.

To help you in your efforts to restrain corrosion and obsolescence, check with Crane engineers whenever you have a "special" problem. Crane's experience in the oil industry is so broad that we may be able to solve your problem with regular CranEquipment. If not, no other manufacturer of valves and fittings is better equipped to help you create what you require.

# THE WAVE OF ACCEPTANCE




*This photograph shows how another Smith Vessel was similarly floated up a tropical river in South America.*



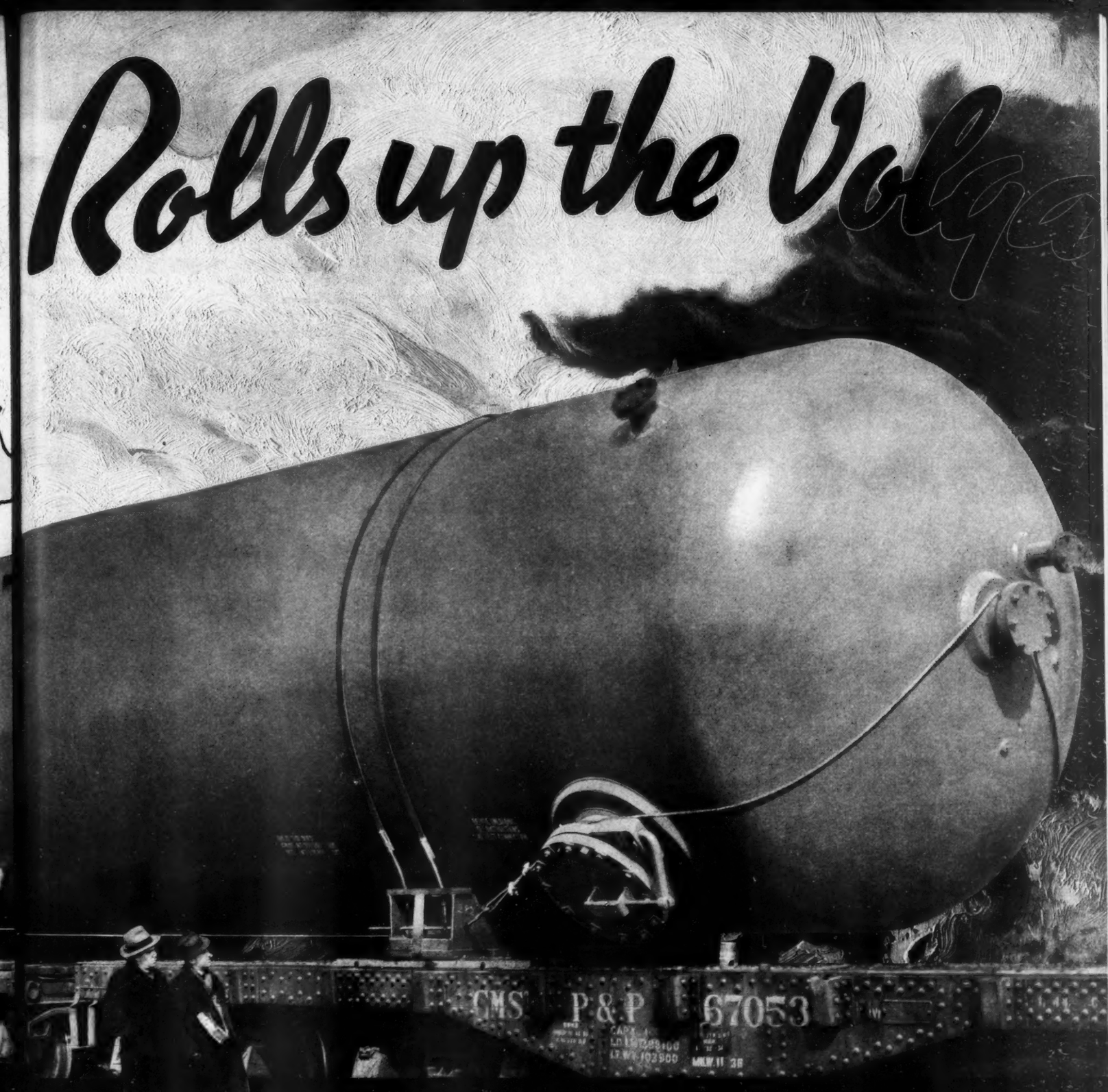
# A.O. SMITH
## *CORPORATION*

MILWAUKEE, WISCONSIN • *DISTRICT OFFICES:* NEW YORK
CLEVELAND, CHICAGO, TULSA, HOUSTON, LOS ANGELES

***MAKING STEEL WORK FOR YOU AS IT NEVER DID BEFORE IN***

SMITH PRESSURE VESSELS – SMITH HIGH-YIELD CASING – SMITH LINE PIPE

# Rolls up the Volga




THE famous Volga Boatmen will soon see a strange sight: this huge Smith Pressure Vessel floating up the river and its tributaries—1900 miles from Leningrad to the town of Ufa in the Ural Mountains.

Too large and heavy to be carried by river boat, it will be closed airtight and dumped off the ocean steamer at Leningrad, then towed by small craft through the inland waterways of U. S. S. R.

This Smithwelded and Smithlined Evaporator for oil cracking is one of the largest vessels ever built, all dimensions considered. The inside diameter is 12 feet, the wall thickness is 2 3/8 inches and the over-all length is more than 91 feet.

## SMITH PRESSURE VESSELS

*Lined or Unlined—Any Size or Shape Within Transportation Limits*

# FULFILLING

## MODERN REFINERS' DEMANDS

Today, after twelve years of intensive operating and research experience, Filtrol Corporation supplies many progressive refiners with SUPER FILTROL . . . an artificially activated clay that is prepared by chemical treatment under protective patents. Every sale is accompanied by a licensed right* covering its use under patents of Contact Filtration Company relating to clarification, neutralization and decolorization of petroleum oil.

*** PROTECTING LICENSE TO REFINERS**

**The purchaser of this clay is licensed to employ it in the clarification, decolorization and neutralization of petroleum oil under the patents of Contact Filtration Company.**

*Those interested are invited to make inquiry regarding their particular requirements.*

*Address Department A*

## FILTROL CORPORATION

**315 WEST FIFTH STREET, LOS ANGELES, CALIFORNIA**

**BRANCHES: New York • Philadelphia**
**EUROPEAN REPRESENTATIVE:**
**Dr. Hermann Bensmann**
**Postfache 482, Bremen, Germany**

**PLANTS: Los Angeles • Jackson, Miss.**
**ARGENTINE REPRESENTATIVE:**
**Rolando J. Longoni**
**441 Bme Mitre, Buenos Aires, Argentina**

*The Oil and Gas Journal*, issued weekly by The Petroleum Publishing Company, 114-116 West Second Street, Tulsa, Oklahoma. Subscription prices: Domestic, $6.00 a year; foreign, $7.00 a year. Entered as second-class mail matter December 15, 1911, at the post office at Tulsa, Oklahoma, under the Act of March 3, 1879.

PENBERTHY PRODUCTS

Hydraulic Ejector

Steam Ejector

"Safeguard" Automatic Liquid Level Gage

Automatic Injector

# PENBERTHY REFLEX GAGE

(LICENSED UNDER JERGUSON PATENT)

for Oil Field, Locomotive Type, and Marine Boilers

"Navy Type" Liquid Level Gage

Gas Engine Lubricator

**THE STEAM SHOWS WHITE**

**THE WATER SHOWS BLACK**

"All-Iron" Automatic Liquid Level Gage

Snap Lever Oiler

PENBERTHY PRODUCTS

• The Penberthy Reflex Gage shown here is recommended for working pressures to 350 lb. at 450°F. It is available in both Navy Bronze and Malleable Iron. Other Penberthy Reflex Gages are made in any length desired for higher pressures and for various kinds of liquids. Any leading oil well supply distributor will be pleased to quote upon your particular requirements.

Automatic Cellar Drainer (Water or Steam Operated)

Automatic Electric Sump Pump

**PENBERTHY INJECTOR COMPANY** *Manufacturers of* QUALITY PRODUCTS *Since 1886*
DETROIT, MICH. • *Canadian Plant,* Windsor, Ont.

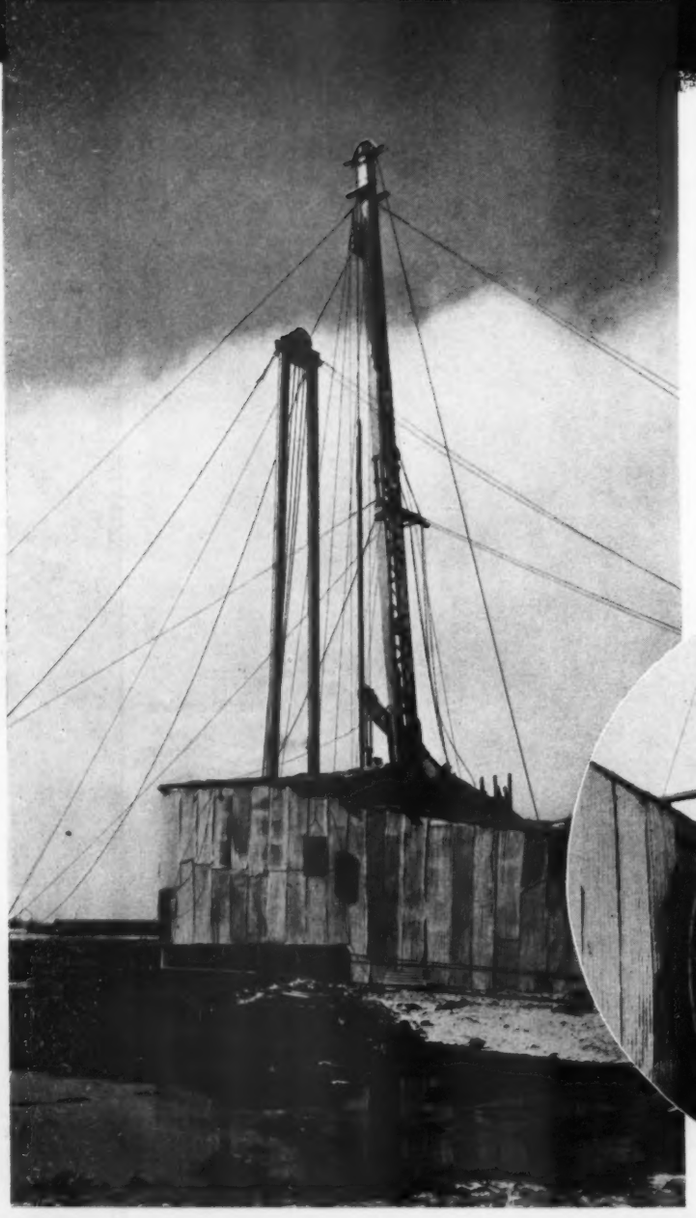
Spring Compression Grease Cup

Plain Compression Grease Cup

Screw Plunger Grease Cup

# THE NO. 3A-6 PORTABLE DRILLING RIG

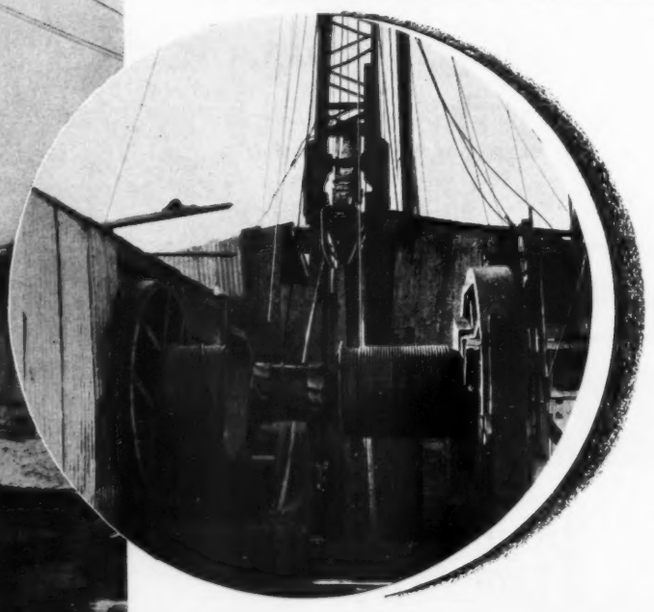
## . . . EXTENDS FIELD OF PORTABLE CABLE TOOL MACHINES



**The 3A-6 National Portable Drilling Rig is designed to handle tools regularly used with standard rigs. Notwithstanding its great strength and capacity, it is made up of separate units quickly detached and trucked to locations.**

**New and improved features:**

- **Alloy Steel Heat Treated Six Inch Crank Shaft**
- **Seventy Foot All Steel Mast**
- **Fifty Five Foot Shear Poles**
- **Practical Wire Line Shock Absorber**
- **All Steel Bull Wheels**
- **Water Cooled Bull Wheel Steel Brake Wheel**
- **Manganese Sheaves**
- **Large Capacity Sand Reel**
- **Quick Detachable All Steel Pitman**
- **Practical Attachment to Operate Rotary**



NSCO
REG. U. S. PAT. OFF.

# National

**THE NATIONAL SUPPLY COMPANY OF DELAWARE**

DIVISION OFFICES: PITTSBURGH, PA., FORT WORTH, TEXAS, TULSA, OKLA., TORRANCE, CALIF. · MAIN OFFICE: TOLEDO, OHIO

# Put THIS Belt on the Drive

## *...and Stop Worrying About Shut-Down Losses!*

# GOODALL

## "POWER KING"

### RAW EDGE TRANSMISSION

## BELTING

GOODALL "POWER KING" is just what its name implies—a belt with the power to carry the heaviest load on the toughest drives—out-ranked by *none* in providing long, trouble-free, low-cost service.

Because of the character of the materials and the special methods employed in its construction, "POWER KING" Belting possesses the following qualities which, combined, make it the most dependable belt for oil well service.

It has no seams. Each ply is all one piece from edge to edge. As a result, it can be operated with either side to the pulleys and will run straight and true without excess strain on either belt *or* pulleys.

The manner in which the fabric is woven makes it virtually free from natural stretch.

The special GOODALL construction prevents any possibility of ply separation.

Despite its outstanding strength and ruggedness, "POWER KING" Belting is extremely flexible, permitting it to turn on smaller pulleys than could be used with other belts of similar weight.

The edges are treated with a special compound to prevent oil, moisture, etc. from seeping in between the various plies.

The soundness of the fabric provides a particularly firm foundation for hooks and lacings. Hooks and holes stay *put!*

Made in all widths from 2″ to 30″, any specified length.

*Immediate Delivery from Stock*

*It has proved its worth where the going is toughest . . . on Pumping and Drilling drives in the oil fields. The service it gives can't be equalled by belts of any other type of construction.*

## GOODALL RUBBER CO.

5 S. 36th STREET, PHILADELPHIA, PA.

HOUSTON . NEW YORK . PITTSBURGH . CHICAGO . CLEVELAND

GOODALL MECHANICAL CORP.

SAN FRANCISCO . LOS ANGELES . SEATTLE

MILLS: TRENTON, N. J.

# DON'T POISON THEM

Gumbugs don't have a chance against the chemical sergeant and you can't drown him  Water won't wash him out of gasoline -- or the chemical cop either

But poison will put them out

If you use too much sulfur in doctor treating, if you leave caustic in the gasoline after sweetening, the police department turns up its toes and the gumbugs increase and multiply

The chemical sergeant is U O P Inhibitor No 4  The cop is No 1

The sergeant keeps the gum all out of your cracked gasoline and the anti-knock value all in -- if you give him the chance

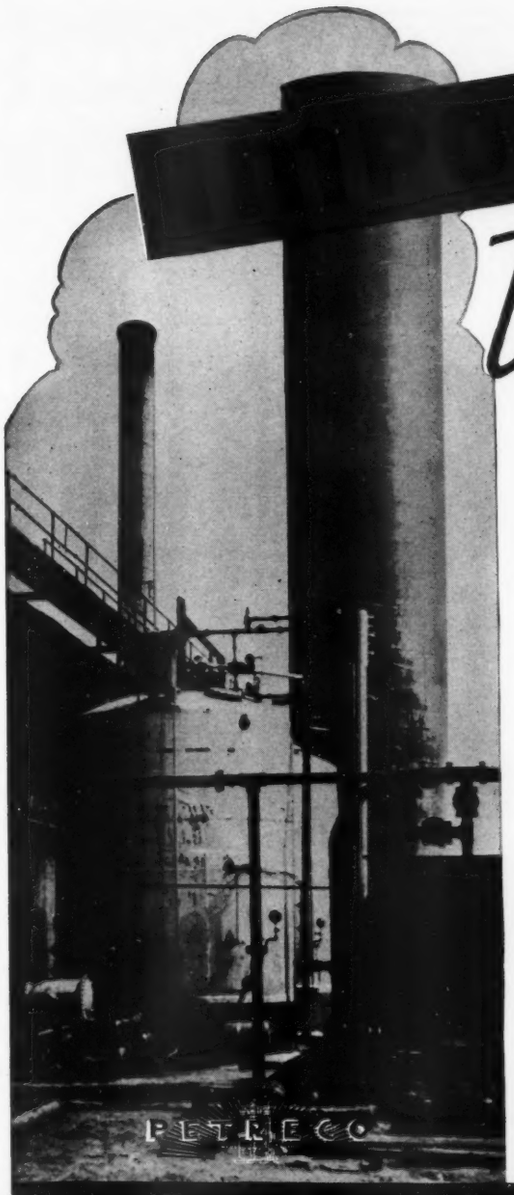
Treat your gasoline by the U O P sweetening process before inhibiting -- then the chemical sergeant will have the best possible chance to do his duty as the birth controller of gumbugs

The chemical sergeant saves you the cost of acid treating and does a better job

Universal Oil Products Co
Chicago, Illinois

Dubbs Cracking Process
Owner and Licensor

Copyright 1937, Universal Oil Products Co




# to REFINERS of CRUDE PETROLEUM

The many difficulties resulting from salts in petroleum are well known to all refinery executives. The important advantages resulting from efficient salt-removal, however, are not so well recognized. Doubtless this may be attributed to the fact that heretofore there has been no commercially feasible method by which the salt content of large volumes of oil could be eliminated, or reduced to a satisfactory minimum; many refiners accepting as inevitable certain operating conditions that primarily are due to this cause.

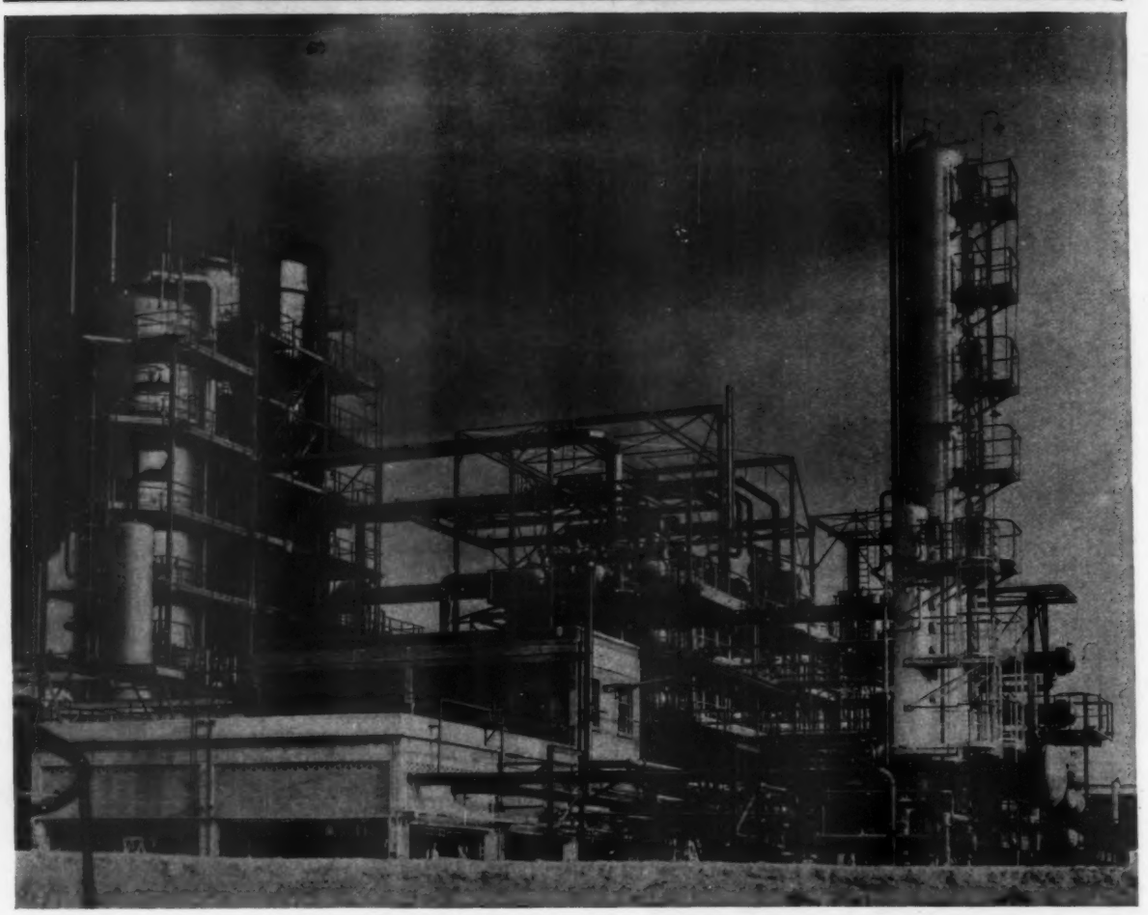
One of the most outstanding among Petreco's recent activities has been extensive research and development work in the removal of salts from crude charging stocks. Plants now operating clearly demonstrate that the difficulties resulting from salts in petroleum can be entirely eliminated; and that the additional advantages which follow are of utmost importance to refiners of crude petroleum.

Every oil company executive in any way affiliated with refining operations should be fully informed of the results obtained with this process in actual service. Complete details are available on request, without obligation.

**PETROLEUM RECTIFYING COMPANY**
**of CALIFORNIA**
**General Offices 530 West Sixth Street, Los Angeles, California.**
**Branch Office: Houston, Texas**

*Branches and Service Men in Principal Oil Fields*

# *Flexibility Of Operation*



***...a basic principle of Kellogg design***

The diversity and higher quality of products which the modern refinery must produce today in order to compete successfully make it imperative that the unit design provide the maximum flexibility of operation.

The noteworthy flexibility of Kellogg-built cracking units enables the refiner to vary the proportion of finished products to meet changing market demands!

THE M. W. KELLOGG COMPANY · JERSEY CITY, NEW JERSEY · 225 BROADWAY, NEW YORK

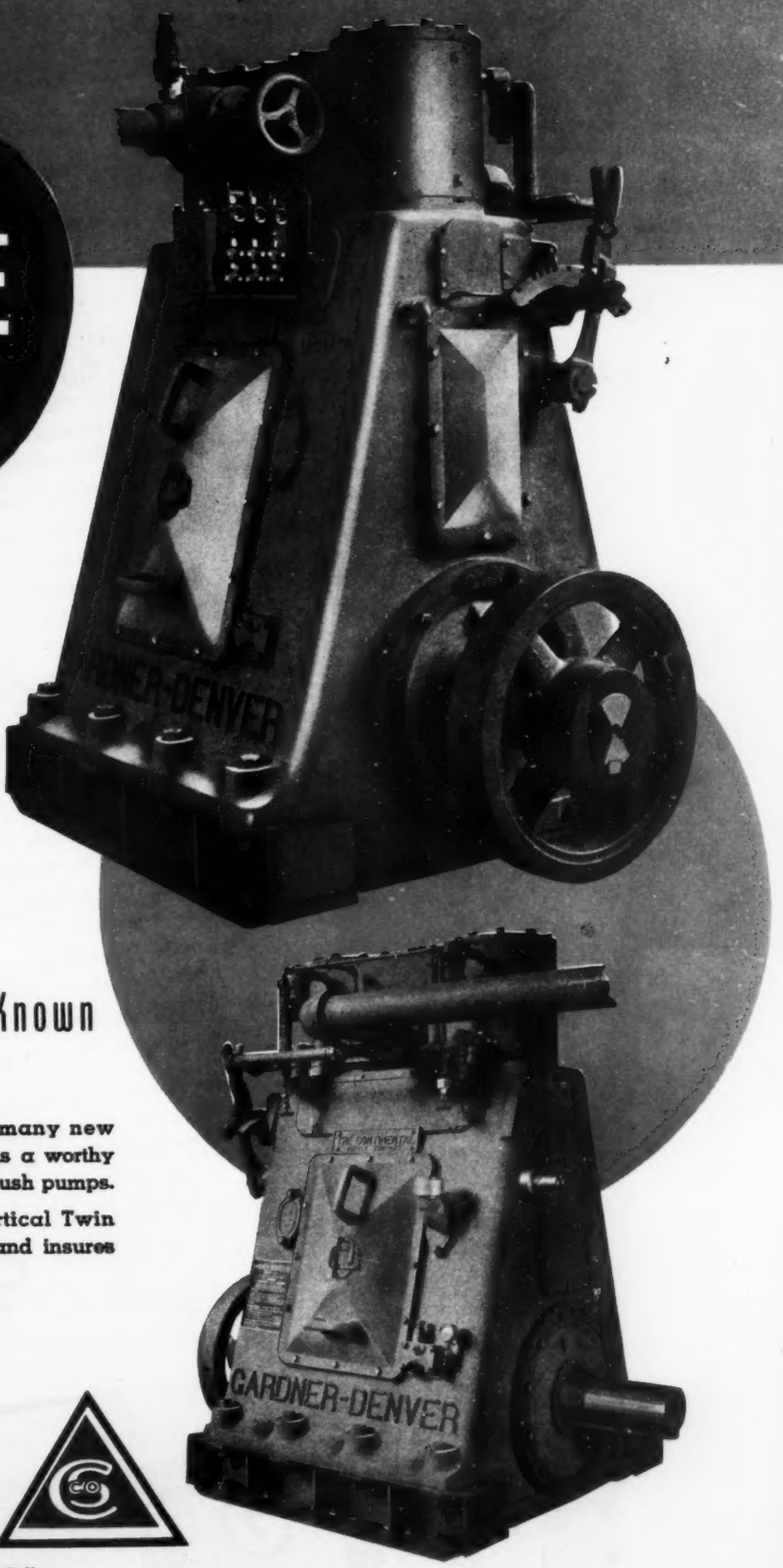
Los Angeles: 1031 South Broadway · Tulsa: Philtower Building · EUROPEAN REPRESENTATIVE: Compagnie Technique des Petroles, 134 Boulevard Haussmann, Paris, France

**KELLOGG**

LICENSING AND CONSTRUCTION AGENTS under United States and Foreign Patents for: Gasoline Products Company, Inc. · Cross · Holmes-Manley · de Florez · Tube and Tank · Combination · Cracking Units · · · The Polymerization Process Corporation · Gas Polymerization Units · · · The Gray Processes Corporation · Clay Treating · · · Standard Oil Company (New Jersey) · Standard Oil Company (Indiana) · Union Oil Company of California · Lube oil refining with Propane and Phenol · · · Deasphalting · Dewaxing · Solvent Extraction and Acid Treating Plants

# CONTINENTAL Announces

## A VERTICAL ENGINE FOR GREATER Economy




### Especially Designed for..
### Rotary Drilling and Power Pump Drives

- MADE IN TWO SIZES—8 x 8 AND 9½ x 8—FOR VARIOUS STEAM PRESSURES
- PISTON TYPE STEAM VALVES WITH ADJUSTABLE CUT-OFF
- AUTOMATIC DUMP VALVES
- ROLLER MAIN BEARINGS
- METALLIC PACKING TO PREVENT CRANKCASE DILUTION

### An Outstanding Addition to the Well-Known Gardner-Denver Engine Line

Up-to-the-minute in design, rugged in strength, carrying many new mechanical refinements, and built by Gardner-Denver—here is a worthy companion to the famed line of horizontal drilling engines and slush pumps.

Compact in design and dependable in operation, the Vertical Twin Cylinder Engine escapes the hazards of costly breakdowns and insures economy PLUS in service.

●

**THE CONTINENTAL SUPPLY COMPANY**
General Offices: DALLAS, TEXAS
Export Office: CONTINENTAL EMSCO CO., Inc.
30 Rockefeller Plaza New York City, N. Y.

Representatives:
LONDON MARACAIBO PLOESTI BUENOS AIRES

"SERVING THE OIL AND GAS INDUSTRIES"

# CONTINENTAL

# JOHN DOE & SON
INCORPORATED
*Producers - Refiners*

Dear Son:

The Frick-Reid district manager came in today, and I am still chuckling over his poorly concealed astonishment when I asked him to give me detailed information about Axelson pumps and sucker rods. He knows that for many years I have used nothing else. Every experienced producer knows "There is no economical substitute for quality".

I am sending you photographs left on my desk by our Frick-Reid friend:

1—AXELSON Top Collar Both Ends Type (T. S. L.) Pump, widely used by successful producers to combat extremely sandy conditions.

2—AXELSON "Hang by the Neck" (R. S. L.) Pump, composed of a barrel unit which remains stationary with the well tubing, and a plunger unit traveling with the sucker rod.

3—AXELSON Groove Seal (R. C. D.) Pump. Low initial cost Gives satisfactory service under average well conditions.

4—AXELSON Star-B (R. C. D.) Pump. For stripper wells where production has become too limited to warrant the further use of tubing pumps. Installed and removed with the rods.

5—AXELSON Cages for T. S. L. Pumps give extremely long life. The illustration shows heavy duty 4-wing top cage, pin type.

6—AXELSON Multiple Standing Valve—an improved unit to replace the regular standing valve of the T. S. L. Pumps. Lasts much longer. Suggest you investigate this.

7—and 8—The famous AXELSON Double Pin Type and Box and Pin Type Sucker Rods. Available in the right grade of steel to meet any pumping conditions.

9—AXELSON Guide Type Paraffin Scraper Coupling Should ALWAYS be used immediately above the pump and at intervals throughout the rod string.

Bear in mind that Axelson has devoted almost fifty years to the technique of lifting oil from wells. Your Frick-Reid store will have the right Axelson equipment for your area, regardless of the difficulties to be overcome.

Sincerely

*Dad*

**FRICK-REID**
**SUPPLY CORPORATION**
Branch Stores in Old and New Fields
Equipment Suppliers Exclusively
PITTSBURGH, PA.
...TULSA, OKLA...

# HARVEL OIL STOP

**...It stops oil, gas, acid, and moisture leaks.**

**HARVEL OIL STOP**... Is a polymerized phenolic resin chemically reacted to an insoluble stage at point of application without the necessity of heat, pressure or the use of solvents. It is acid and alkali proof, heat resistant, OIL PROOF, safe and easy to handle, and STOPS OIL LEAKS.

**Write today and learn how HARVEL OIL STOP can save you money by stopping costly oil leaks.**

STANDARD OF THE WORLD
IRVINGTON INSULATION
TRADE MARK

*Manufactured under* **HARVEL PATENT LICENSES** *by*

**IRVINGTON VARNISH & INSULATOR CO.**

**IRVINGTON, NEW JERSEY, U. S. A.** *Est.* **1905**

**VARNISHED CAMBRIC • VARNISHED CAMBRIC TAPES • IRV-O-SLOT • VARNISHED CANVAS • VARNISHED SILK**
**FLEXIBLE VARNISHED TUBING • VARNISHES AND COMPOUNDS**

# INDEPENDENCE

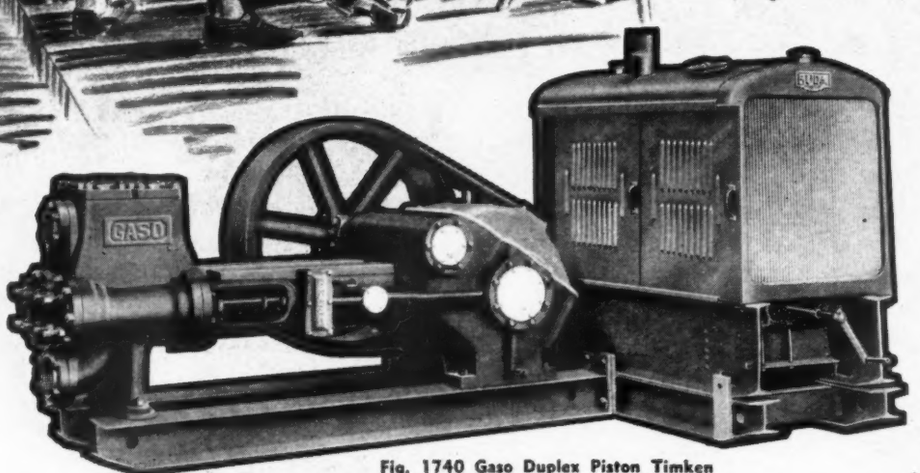



Fig. 1740 Gaso Duplex Piston Timken Bearing Power Pump, 54 to 250 Bbls.

● Drawn by Thomas Jefferson and signed by the American Continental Congress on July 4, 1776, the Declaration of Independence is one of the most important documents of all time.

Every year more and more oil companies sign their own Declaration of Independence from pump troubles by the simple procedure of standardizing on GASO Pumps, made in the heart of the oil country by men who know the rigors of oil-industry conditions. Have you a copy of our catalog? . . . Gaso Pump & Burner Mfg. Co., Tulsa, Okla. Export Office: 149 Broadway, New York.

Complete Gaso Condensed Catalog, in 1937 Composite Catalog

## GASO PUMPS
### for every oil industry need

# "TALK ABOUT SIMPLICITY! ALL YOU NEED IS PLAIN-END PIPE ON A DRESSER-COUPLED LINE"

Why expect the *pipe* to bear any part of the jointing job? It's simpler to place the whole responsibility on Dresser Couplings. Then, you merely specify "plain-end pipe," and ELIMINATE the need and expense of: (1) special preparation of the ends; (2) damage to pipe ends during handling; (3) reduction of wall thickness and strength, especially where corrosive action is present; (4) exact alignment of ends, prior to jointing; (5) exact lengths of pipe.



**Note to Reader**

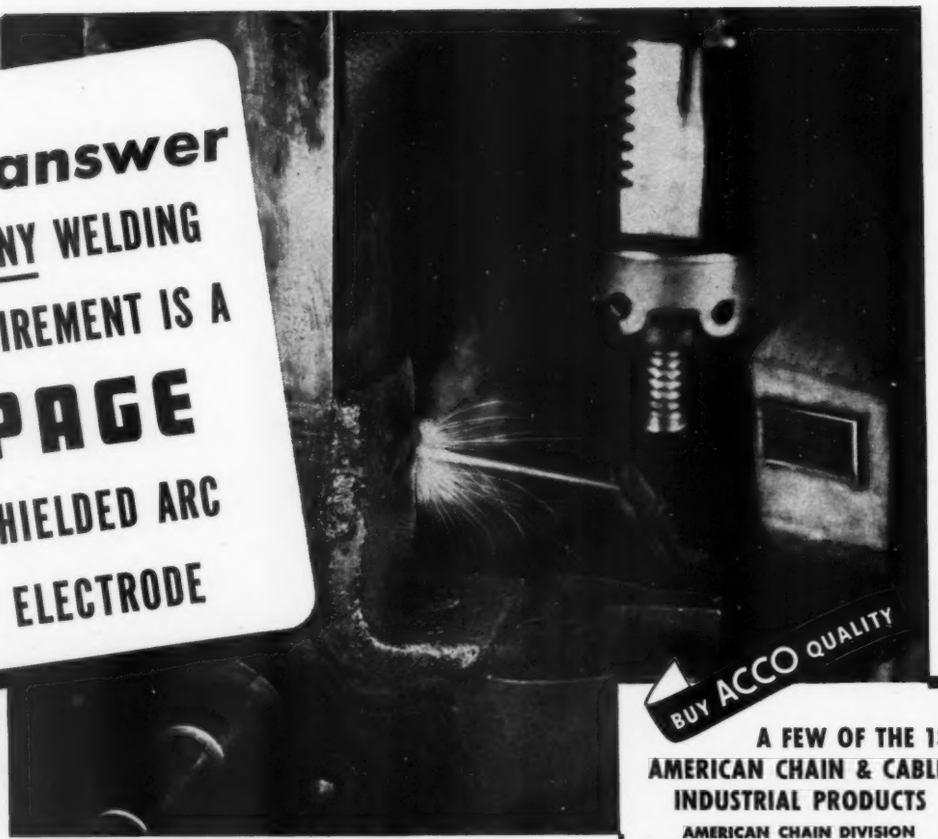
This is the ninth in a series of advertisements dramatizing one engineer's experience with his first Dresser-coupled line. For the complete story, write for Bulletin No. 351.

S. R. DRESSER

MANUFACTURING CO., BRADFORD, PA.

*In Canada:* Dresser Mfg. Company, Ltd., 60 Front Street, West, Toronto, Ont.

# the answer TO ANY WELDING REQUIREMENT IS A PAGE SHIELDED ARC ELECTRODE



BUY ACCO QUALITY

PAGE Shielded Arc Electrodes . . . Hi-Tensile "C", Hi-Tensile "F", Hi-Tensile "A", and Page Allegheny stainless steel . . . are giving excellent results.

The same results are available to you. Whether your requirements call for high tensile strength, great ductility, deep penetration, high speed deposit, overhead welding—there is a Page Electrode that will meet your needs for production efficiency and welding excellence.

Because good wires particularly suited to the job are so essential to sound welding it is good business to standardize on Page . . . the complete line of electrodes . . . each electrode shop-tested.

Page engineers and your Page distributor will co-operate with you to provide the correct rods for your needs—promptly.

**PAGE STEEL & WIRE DIVISION**
**AMERICAN CHAIN & CABLE COMPANY, Inc.**
MONESSEN, PENNSYLVANIA

*In Business for Your Safety*

**A FEW OF THE 137 AMERICAN CHAIN & CABLE INDUSTRIAL PRODUCTS**

**AMERICAN CHAIN DIVISION**
(DOMINION CHAIN COMPANY, Ltd., in Canada)
Weed Tire Chains • Welded and Weldless Chain • Malleable Castings • Railroad Specialties

**AMERICAN CABLE DIVISION**
Tru-Lay Preformed Wire Rope • Tru-Loc Processed Fittings • Crescent Brand Wire Rope • Tru-Stop Brakes

**ANDREW C. CAMPBELL DIVISION**
Abrasive Cutting Machines • Floformers • Special Machinery • Nibbling Machines

**FORD CHAIN BLOCK DIVISION**
Chain Hoists • Trolleys

**HAZARD WIRE ROPE DIVISION**
Green Strand Wire Rope • "Korodless" Wire Rope • Preformed Spring-Lay Wire Rope • Guard Rail Cable

**HIGHLAND IRON & STEEL DIVISION**
Wrought Iron Bars and Shapes

**MANLEY MANUFACTURING DIVISION**
Automotive Service Station Equipment

**OWEN SILENT SPRING COMPANY, Inc.**
Owen Cushion and Mattress Spring Centers

**PAGE STEEL AND WIRE DIVISION**
Page Fence • Wire and Rod Products • Traffic Tape • Welding Wire

**READING-PRATT & CADY DIVISION**
Valves • Electric Steel Fittings

**READING STEEL CASTING DIVISION**
Electric Steel Castings, Rough or Machined

**WRIGHT MANUFACTURING DIVISION**
Chain Hoists • Electric Hoists and Cranes

ACCO

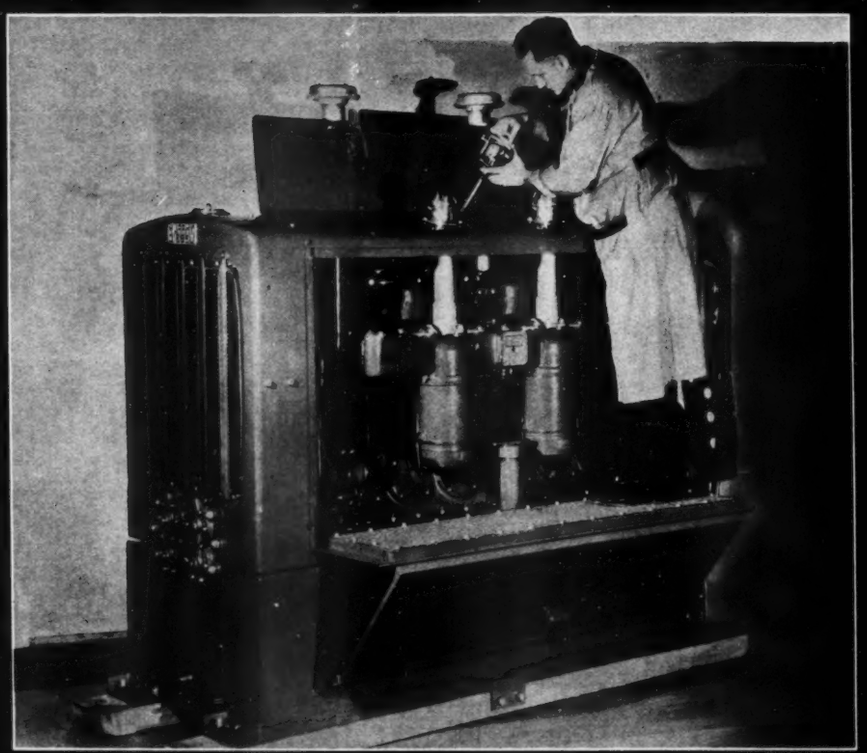
**PAGE *Welding* WIRE**

# W-K-M

NOW EXCLUSIVE DISTRIBUTOR AND FACTORY BRANCH IN THE OIL COUNTRY FOR

# MURPHY DIESEL ENGINES

**THE ENGINE WITH THE PERFECTED INJECTION SYSTEM**



Designed Especially For:

DRILLING RIGS

GENERATOR SETS

PIPE LINE SERVICE

Or For Any Service Where Absolute Dependability is of Vital Importance

•

ENGINES CARRIED IN STOCK FOR IMMEDIATE DELIVERY

•

*Sold Through All Supply Stores*

**PLEASE SEND LITERATURE ON MURPHY DIESELS TO:**

**Name**.....

**Company**.....

**Address**.....

**We are interested in** ..... **HP. Units**

**For**..... **Type of Service.**

**Remarks**.....

**W-K-M Company, Inc.**

OIL FIELD, PIPE-LINE & INDUSTRIAL EQUIPMENT

**HOUSTON, Texas, U. S. A.**

Export Office: 74 Trinity Place, New York

Cable Address: "WILKOMAC"

# Round out your processing control

## WITH TAYLOR FLOW AND LIQUID LEVEL INSTRUMENTS...

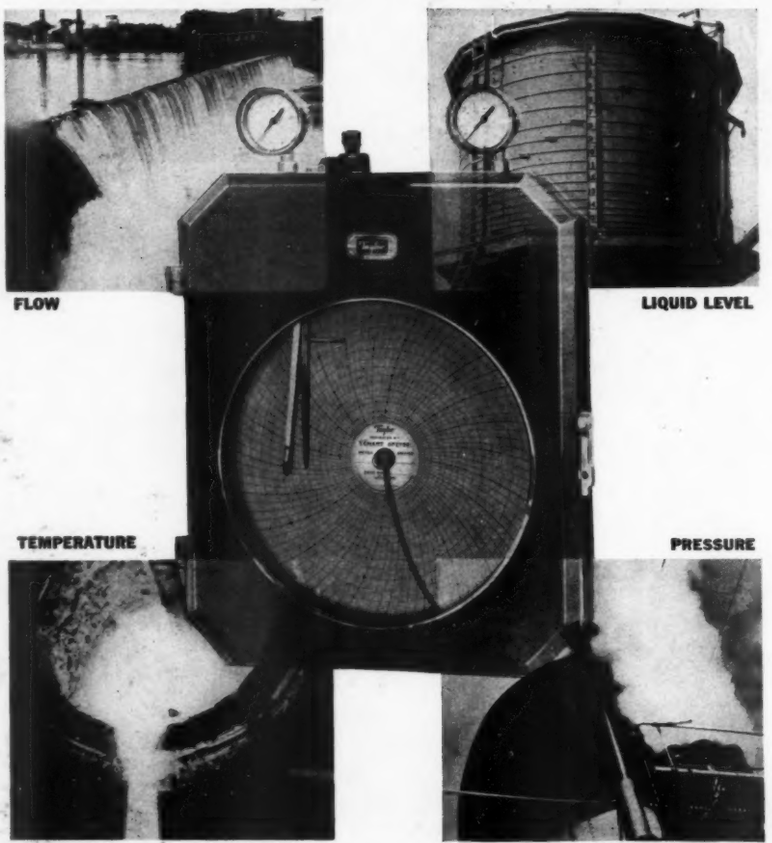
HERE is a reminder to those who say, "Flow Meters? Why, I never thought of Taylor in connection with them."

But Taylor is no new entrant into the rate of flow and liquid level fields. Its modern "Fulscope" Controllers meet practically any industrial requirements today and can be readily adapted to processing needs of tomorrow. Taylor Engineers offer you "Fulscope" Flow and Liquid Level Controllers with as great an accuracy, durability and efficiency as the Taylor "Fulscope" Temperature and Pressure Controllers so widely used throughout the industry.

***AND—this is most important.*** In all these controllers of the "Fulscope" type the control mechanism, means of adjustment and performance characteristics are identical. The only difference is in means of actuation. So that today you can standardize on one type of controller for all phases of a continuous process—temperature, pressure, flow and liquid level.

A 100% Taylor installation is therefore possible with these important advantages: a unified system of control, undivided responsibility, quick and thorough personnel training, interchangeability of parts, lower maintenance costs and more efficient operation. This is why Taylor Control means more than the purchase of individual instruments. It is the reason why plants with Taylor Temperature and Pressure Control should see just what Taylor Flow and Liquid Level Control can accomplish. It reminds plants that have no Taylor Control at all: "Look into the unified, coordinated Process Control that Taylor Engineers can bring you."

As the first step, consult a Taylor Representative or write for the special Taylor Catalog 70J on Rate of Flow and Liquid Level Instruments. For quick action address Taylor Instrument Companies, Rochester, N. Y. Plant also in Toronto, Canada. Manufacturers in Great Britain—Short & Mason, Ltd., London, England.



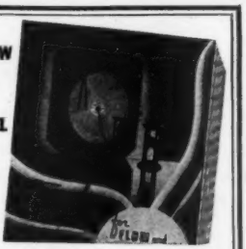

**FOR FLOW, LIQUID LEVEL, TEMPERATURE AND PRESSURE** there are Taylor "Fulscope" Controllers with identical control mechanism, means of adjustment and performance characteristics. Used together, they give a perfectly coordinated and balanced system of process control.

Taylor

Indicating Recording Controlling

**TEMPERATURE, PRESSURE** *and* **FLOW INSTRUMENTS**

**60-PAGE FLOW AND LIQUID LEVEL CATALOG FREE**



Send for full information on the modern line of Taylor Flow and Liquid Level Instruments. See how they can help to modernize your system of continuous process control to the *n*th degree. Especially when hooked in with Taylor Temperature and Pressure Control.

Write for Taylor Catalog 70J to the Taylor offices in Rochester or Toronto.

# *Standardize on Chapman List 960*

Prosecute these troublesome trespassers to the limit. Put all small-valve repairs and troubles away for good. Institute complete law and order on all your small field and refinery lines by placing them under the control of Chapman List 960.

This is the small steel valve that stays on the job for at least 5 years . . . that makes it unnecessary even to stock replacement parts. Guaranteed for all pressures up to 800 lb. at 750°F, and up to 1500 lb. cold working pressure. List 960 is the outside-screw, rising-stem type made of forged steel, with renewable stainless steel parts. Threads are quick-opening. Valves may be repacked under full pressure when open.

Chapman List 960 is stocked in 8 sizes—and in special alloys for extreme conditions—at the factory and warehouses. For prices and delivery dates, contact the Chapman office near you.

**The CHAPMAN VALVE**
MANUFACTURING COMPANY
INDIAN ORCHARD, MASSACHUSETTS

BRANCH OFFICES: Atlanta, Boston, Chicago, Cleveland, Denver, Detroit, Houston, Los Angeles, New York, Philadelphia, Pittsburgh, St. Louis, Salt Lake City, San Francisco, Syracuse, Tulsa.

University of Michigan
General Library
Ann Arbor, Mich.
5-21-29 38

ANN ARBOR MICHIGAN

**HardiFacing Gauge Teeth of HUGHES "Self-Cleaning" Rock Bit Cones**